				D	EPARTMEN [*]						AMEND	FOF					
		A	PPLICATION FOR	PERMIT	TO DRILL					1. WELL NAME and N		921-27D-H	 Z				
2. TYPE O	F WORK	DRILL NEW WELL	REENTER P	&A WELL (DEEPEN	WELL ()			3. FIELD OR WILDCA	T NATURAL I	BUTTES					
4. TYPE O	F WELL			oed Methan						5. UNIT or COMMUNI	TIZATION	AGREEME	NT NAM	E			
6. NAME O	F OPERATOR		KERR-MCGEE OIL &							7. OPERATOR PHONE	720 929)-6515					
8. ADDRE	SS OF OPERAT	OR	P.O. Box 173779, D							9. OPERATOR E-MAII	L		com				
	AL LEASE NUM ., INDIAN, OR S		<u> </u>	11. MINE	RAL OWNERS	SHIP DIAN	STATE () FEE	0	12. SURFACE OWNER			~	E ()			
13. NAME		OWNER (if box 12	= 'fee')	1						14. SURFACE OWNER	RPHONE	(if box 12	'fee')				
15. ADDR	ESS OF SURF	ACE OWNER (if box	(12 = 'fee')							16. SURFACE OWNE	R E-MAIL	(if box 12	= 'fee')				
	N ALLOTTEE O = 'INDIAN')	R TRIBE NAME			ND TO COMM E FORMATIO (Submit C	NS	RODUCTION		•	19. SLANT VERTICAL DI	RECTIONA	L H	ORIZONT	AL 📵			
20. LOCA	TION OF WEL	L	F	OOTAGES		QTR	r-QTR	SEC	CTION	TOWNSHIP	RA	NGE	ME	RIDIAN			
LOCATIO	N AT SURFAC	E	384 F	NL 252 FV	VL	NW	/NW	2	27	9.0 \$	21	.0 E	27D-HZ TES REEMENT NAME 15 darko.com STATE FEE OX 12 = 'fee') HORIZONTAL MERIDIAN S S S GUNIT D: 4730 / R IF APPLICABLE acks Yield Weight 215 1.18 15.6 50 1.18 15.6 290 1.98 12.5 280 1.25 14.3 0 0.0 0.0 0 0.0 0.0				
Top of U	ppermost Pro	ducing Zone	460 F	SL 460 FV	VL	sw	/SW		27	9.0 S	21	.0 E		S			
At Total	Depth		460 F	SL 460 FV	VL	SW	<i>I</i> SW	2	27	9.0 S	21	.0 E		S			
21. COUN	TY	UINTAH		22. DISTA	ANCE TO NEA	REST LEA		et)	7	23. NUMBER OF ACR	ES IN DRIL		Г				
					NCE TO NEA For Drilling		eted)	POOL		26. PROPOSED DEPT		TVD: 4730)				
27. ELEV	ATION - GROU	ND LEVEL		28. BONE	NUMBER	220135	542			29. SOURCE OF DRIL WATER RIGHTS APPR		MBER IF A	PPLICABI	-E			
				H	ole, Casing			mation	l								
String	Hole Size	Casing Size	Length	Weight	Grade &	Thread	Max Mu	ud Wt.		Cement		Sacks	Yield	Weight			
SURF	12.25	9.625	0 - 2723	36.0	J-55	LT&C	8.	.4		Type V		215					
<u> 11</u>	8.75	7	0 5225	20.0	D 440	LT&C	10	\ <u></u>	Dro	Type V	0 0 0 th						
	0.75		0 - 5335	26.0	10	LIAC	-	7.5	FIE	mium Lite High Str 50/50 Poz	engin						
L1	6.125	4.5	3786 - 9397	11.6	P-110	LT&C	9.	.5	-	No Used							
										No Used		0	0.0	0.0			
			1		A	TTACHM	MENTS										
	VEF	RIFY THE FOLLO	WING ARE ATTA	CHED IN	ACCORDAN	ICE WITH	H THE UTAI	H OIL A	ND GAS	CONSERVATION G	ENERAL	RULES					
w w	ELL PLAT OR	IAP PREPARED BY	LICENSED SURVEYO	OR OR ENG	INEER]	СОМР	LETE DE	RILLING PI	.AN							
AF	FIDAVIT OF ST	ATUS OF SURFACE	OWNER AGREEMEN	NT (IF FEE S	SURFACE)		FORM	5. IF OPI	ERATOR IS	OTHER THAN THE LI	EASE OWN	NER					
☑ DIF	RECTIONAL SU	RVEY PLAN (IF DI	RECTIONALLY OR H	ORIZONTA	LLY DRILLED)) [торос	SRAPHIC	CAL MAP								
NAME Ar	ndy Lytle			TITLE Re	gulatory Anal	yst			PHONE 7	720 929-6100							
SIGNATU	RE			DATE 10	/04/2011				EMAIL ar	ndrew.lytle@anadarko.	com						
	BER ASSIGNED 04752051			APPROV	AL				Bern	O Cylll nit Manager							

Maverick 921-27D-HZ Drilling Program
1 of 9

Kerr-McGee Oil & Gas Onshore. L.P.

MAVERICK 921-27D-HZ

Surface: 384 FNL / 252 FWL NWNW
BHL: 460 FSL / 460 FWL SWSW

Section 27 T9S R21E

Unitah County, Utah Mineral Lease: UT ST UO 1194A ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1573	Water
Birds Nest	1783	Water
Mahogany	2273	Water
Uteland Butte	5090	Oil/Gas
TVD	4730	
TMD	9397	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

Evaluation Program:

Please refer to the attached Drilling Program

Maverick 921-27D-HZ Drilling Program 2 of 9

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 2,081 psi 4730' TVD, approximately equals

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 1,296 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may

Maverick 921-27D-HZ Drilling Program
3 of 9

be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Maverick 921-27D-HZ Drilling Program
4 of 9

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. <u>Other Information:</u>

Please refer to the attached Drilling Program.

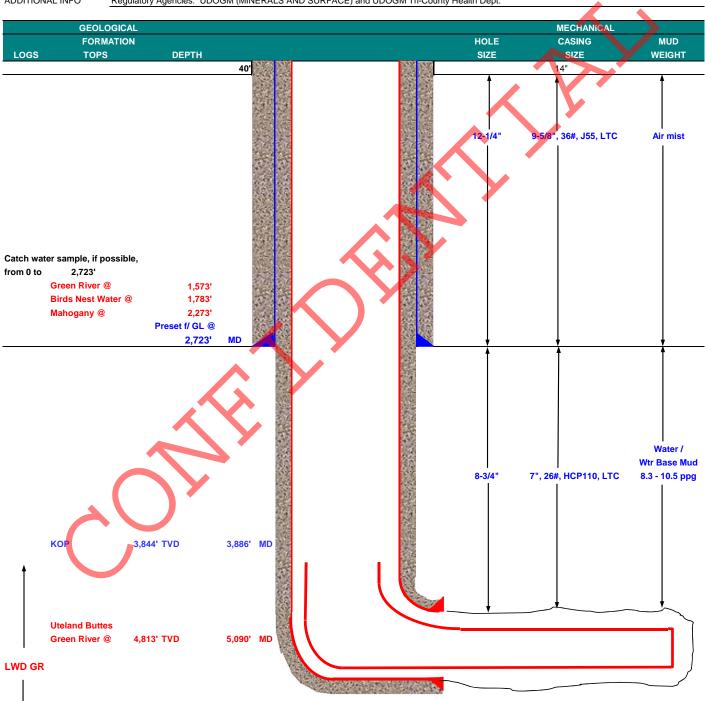
Maverick 921-27D-HZ

Drilling Program

5 of 9

KerrNcGee Kerr McGee Oil and Gas Onshore LP DRILLING PROGRAM

COMPANY NAME	Kerr McGee C	il and Gas Onshore LP		DATE	October 4, 2011				
WELL NAME	Maverick 9	21-27D-HZ			TVD	4,730'	9,397' MD	KB 15'	
FIELD Natural Butt	es	COUNTY L	Jintah	STATE	Utah	ELEVATION	4,934' GL	KB 4,949'	
SURFACE LOCATION	NWNW Se	ec 27, T9S, R21E 384' FN	L 252' FWL						
BTM HOLE LOCATION	SWSW Se	ec 27, T9S, R21E 460' FS	L 460' FWL						
Surface	Latitude:	40.013318	Longitude:	-109.545762	NAD 27				
BHL	Latitude:	40.001069	Longitude:	-109.544923	NAD 27				
OBJECTIVE ZONE(S)	Uteland Bu	ittesGreen River	•		•	•			
ADDITIONAL INFO	Regulatory	Agencies: LIDOGM (MINE	FRALS AND SU	IRFACE) and UDO	M Tri-Count	ty Health Dept		•	







Drilling Program Maverick 921-27D-HZ 7 of 9

Kerr McGee Oil and Gas Onshore LP **DRILLING PROGRAM**

CASING PROGRAM

									DESIGN FACTO	DRS
	SIZE	INTE	RVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-	0-40'							
								3520	2020	453000
SURFACE	9-5/8"	0	to	2,723'	36.00	J55	LTC	2.72**	1.59	5.36
								9950	7800	278000
INTERMEDIATE	7"	0	to	5,335'	26.00	HCP-110	LTC	4.26	3.34	2.58
								10690	8650	367000
PRODUCTION	4-1/2"	3,786'	to	5,435'	11.60	HCP-110	DQX	44.03	3.70	5.05
			•					10690	8650	279000
	4-1/2"	5,435'	to	9,397'	11.60	HCP-110	LTC	>100	3.70	6.07

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)
- 2) MASP (Prod Casing) = Pore Pressure at TD (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 9.5 ppg)

.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP

Burst SF is low but casing is much stronger than formation at 2653'. EMW @ 2653' for 3520# is 25.5 ppg or 1.33 psi/ft

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl ₂	215	60%	15.60	1.18
Option 1			+ .25 pps flocele				
TOP OUT	CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
			+ 2% CaCl ₂ + .25 pps flocele				
TOP OUT	CMT (2)	as required	Premium cmt + 2% CaCl ₂	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to surface, of	tion 2 will	be utilized		
Option 2	LEAD	2,223'	65/35 Poz + 6% Gel + 10 pps gilsonite	520	35%	12.60	1.81
			+.25 pps Flocele + 3% salt BWOW				
	TAIL	500	Premium cmt + 2% CaCl ₂	180	35%	15.60	1.18
			+ .25 pps flocele				
TOP O	UT CMT	as required	Premium cmt + 2% CaCl ₂	as req.		15.60	1.18
INTERMEDIATE	LEAD	3,386'	Premium Lite II + 3% KCl + 0.25 pps	290	10%	12.50	1.98
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	1,949'	50/50 Poz/G + 10% salt + 2% gel	280	10%	14.30	1.25
	L		+.1% R-3				
PRODUCTION	LEAD		No cement will be used on Packers Plus Completion System				
	TAIL						
	L						

^{**}Excess applied to the Lead slurry is calculated on Open hole Volume only.

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 it, insert float. Centralize first 3 joints with bow spring
	centralizers. Thread lock guide shoe.
INTERMEDIATE	Float shoe, 2 jt w/ centralizer on each, float collar. 1 centralizers on next 23 joints, total 25 centralizers
PRODUCTION	Packer Plus completion system

tute caliper hole volume plus 5% excess for LEAD if accurate caliper is obtained Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

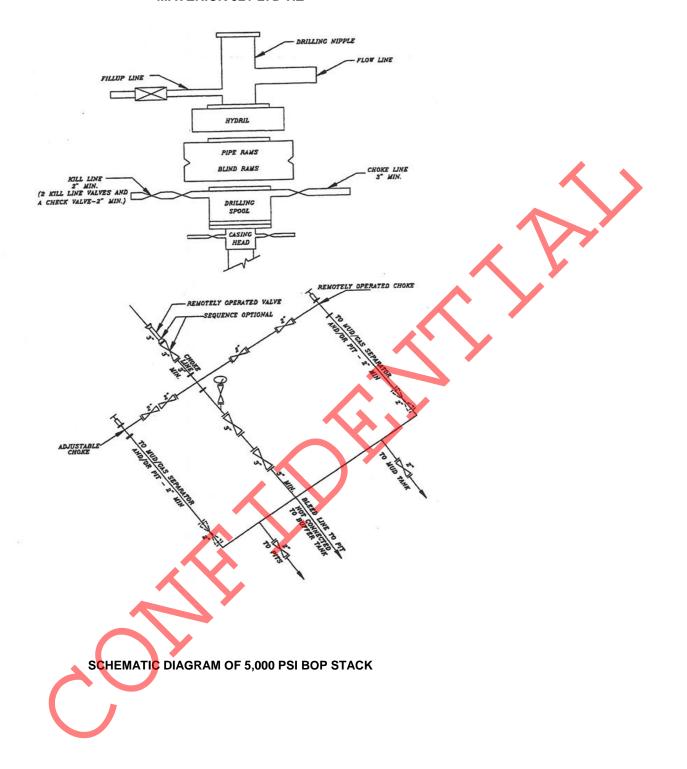
Maverick 921-27D-HZ Drilling Program

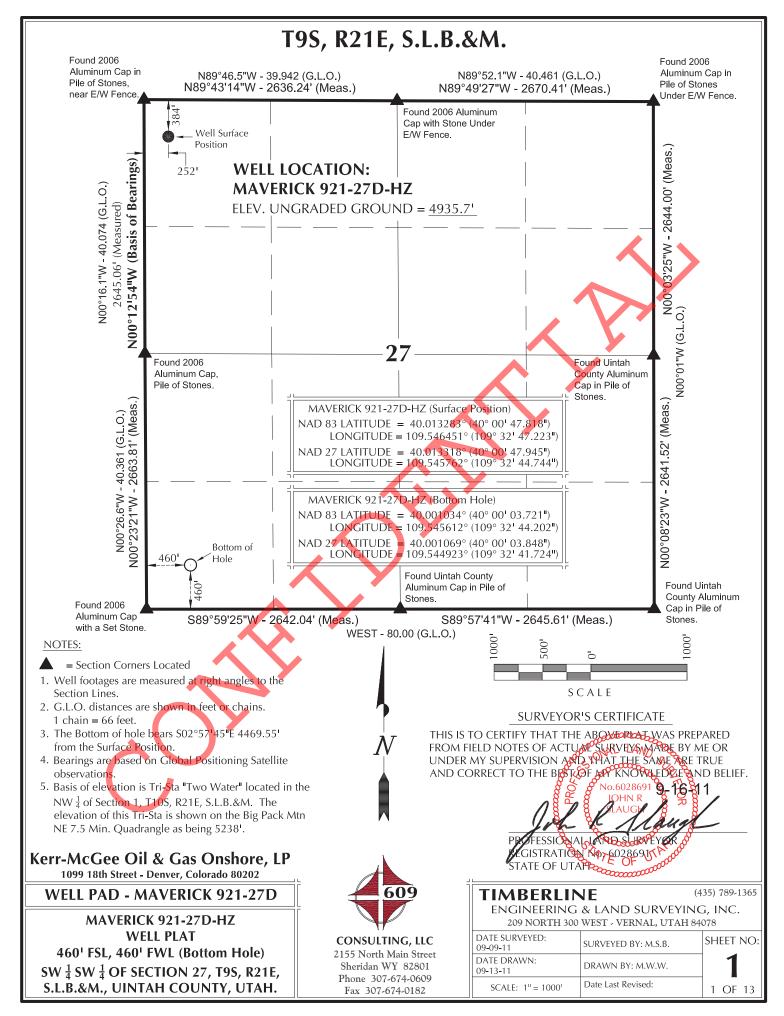
<u>DDITION</u>	AL INFORMATION			
	Test casing head to 750	psi after installing. Test surface casing to 1	,500 psi prior to drilling out. Test intermed	diate casing to 4500 psi prior to drill out.
	BOPE: 11" 5M with one	annular and 2 rams. Test to 5,000 psi (ann	nular to 2,500 psi) prior to drilling out. Rec	ord on chart recorder &
		t rams on each trip. Maintain safety valve &	k inside BOP on rig floor at all times. Kelly	to be equipped with upper
	& lower kelly valves.	4001 during planted and a barren and au	and FOOL where are sinterior in a north	
		100' during planned angle changes and ever tem for mud monitoring. If no PVT is availab		
ILLING	ENGINEER:			DATE: 9/29/2011
		John Huycke		
ILLING	SUPERINTENDENT:	Lovel Young		DATE:

Maverick 921-27D-HZ

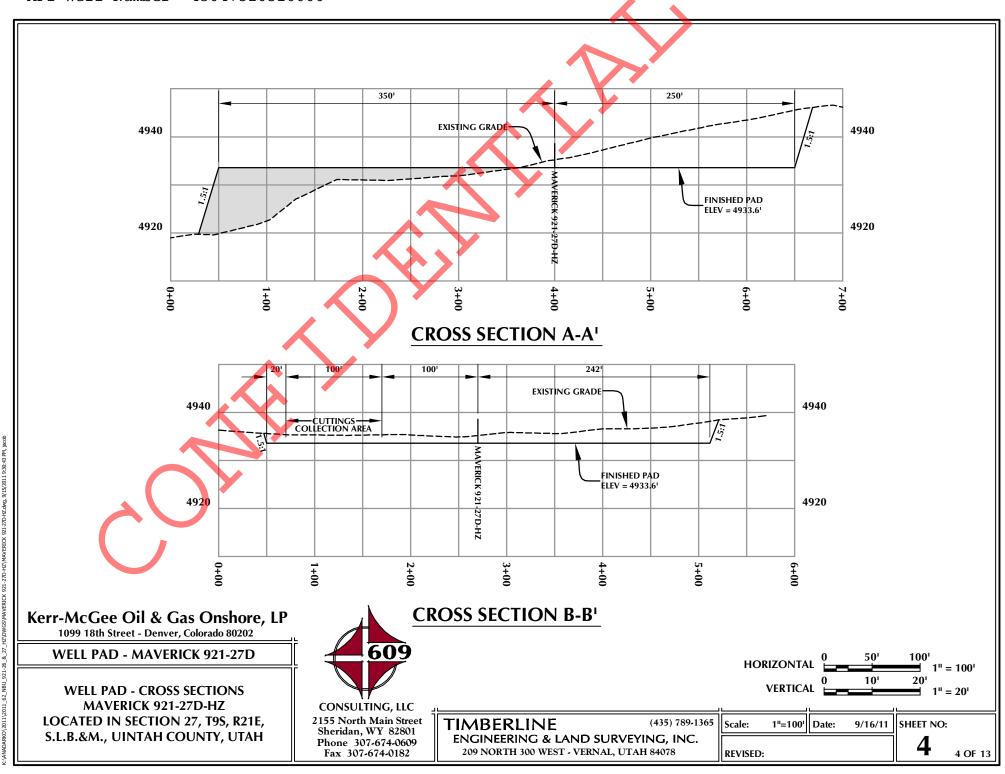
EXHIBIT A
MAVERICK 921-27D-HZ

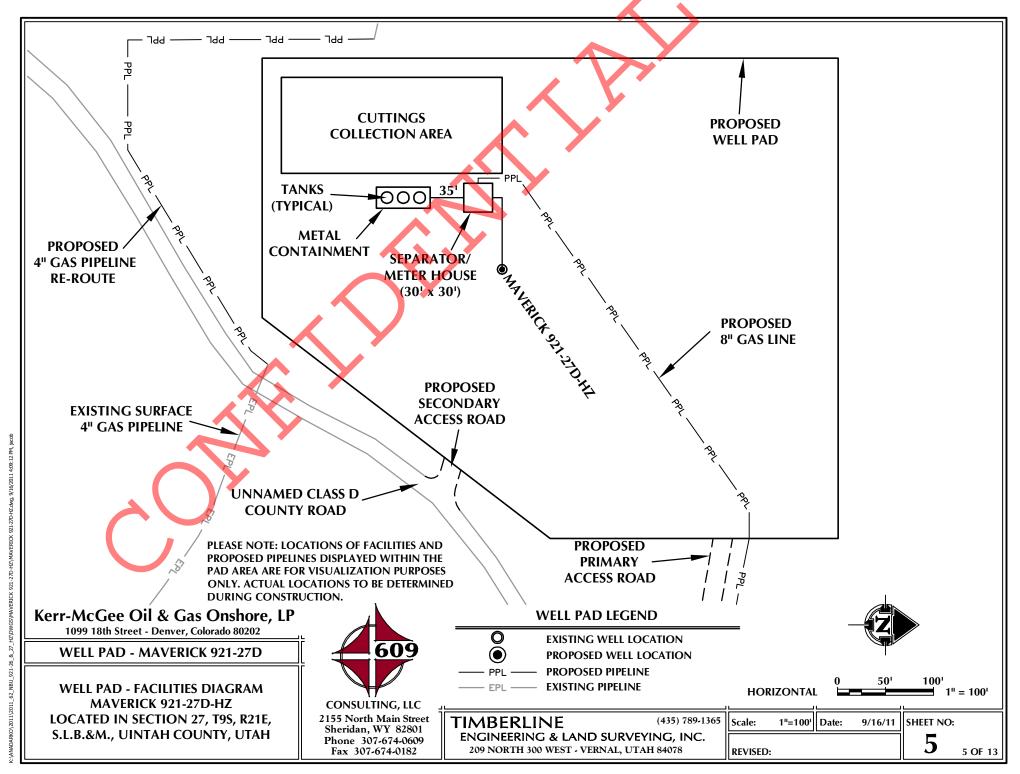
Drilling Program 9 of 9

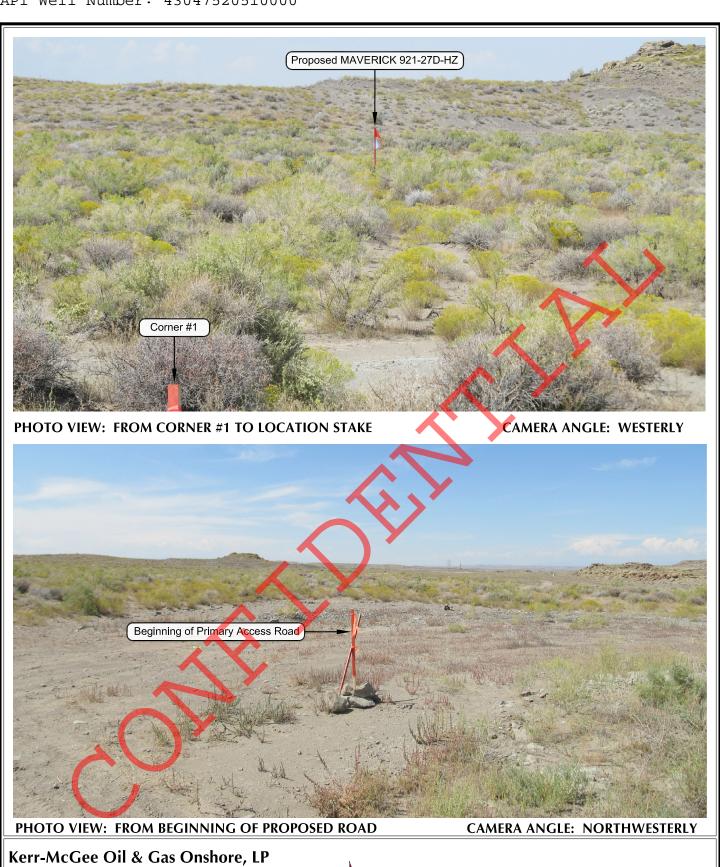




		SU	IRFACE POSITIO)N			E	OTTOM HOLE		
WELL NAME	NA LATITUDE	LONGITUDE	NAD27			NAI LATITUDE	D83 LONGITUDE	NAD27		
MAVERICK	40°00'47.818	" 109°32'47.223'		109°32'44.744"	384' FNL	40°00'03.721"			109°32'41.724"	460' FSL
921-27D-HZ	40.013283°	109.546451°	40.013318°	109.545762°	252' FWL	40.001034°	109.545612°	40.001069°	109.544923°	460' FWL
	VE COORDINA Position to Bot	ll ll								
WELL NAME	NORTH	EAST								
MAVERICK 921-27D-HZ	-4,463.61	231.01								
					OOO: OF TR21II GLO OBS MAVERIA	THE NW 1/4 C E, S.L.B.&M. W BAL POSITION	GS IS THE WES OF SECTION 27 /HICH IS TAKE NING SATELLI O BEAR NOO°	, T9S, N FROM TE 12 ¹ 54"W.		-00I
Kerr-Mc	8th Street - D	& Gas Ons	80202			<u> </u>			ALE	
		EDICK 021	-27D		609		IMBERL Engineerin			35) 789-1365
WELL PA						[
WELL PA	PAD INT	ERFERENC					209 NORTH	300 WEST - VEF	RNAL, UTAH 84	078
WELL PA WELL F WELI	PAD INT	ERFERENC ICK 921-271	D-HZ		ULTING, LL orth Main Stre	C DAT 09-0	209 NORTH E SURVEYED: 9-11		RNAL, UTAH 84	
WELL PA WELL F WELI LOCATE	PAD INTI L - MAVER ED IN SECT	ERFERENC	O-HZ S, R21E,	2155 No Sherid		DAT 09-0 DAT 09-0	209 NORTH E SURVEYED: 9-11 E DRAWN:	300 WEST - VEF	RNAL, UTAH 840 BY: M.S.B.	078







1099 18th Street - Denver, Colorado 80202

WELL PAD - MAVERICK 921-27D

LOCATION PHOTOS MAVERICK 921-27D-HZ LOCATED IN SECTION 27, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

TIMBERLINE ENGINEERING & LA
ENGINEERING & LA
209 NORTH 300 WEST

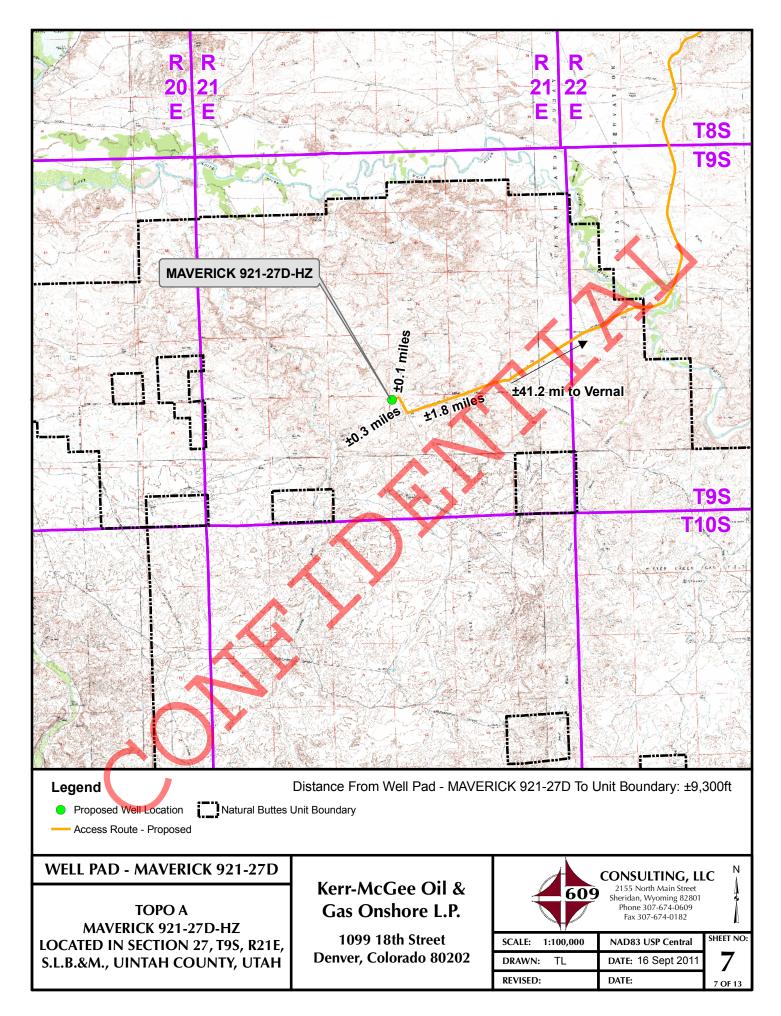
(435) 789-1365

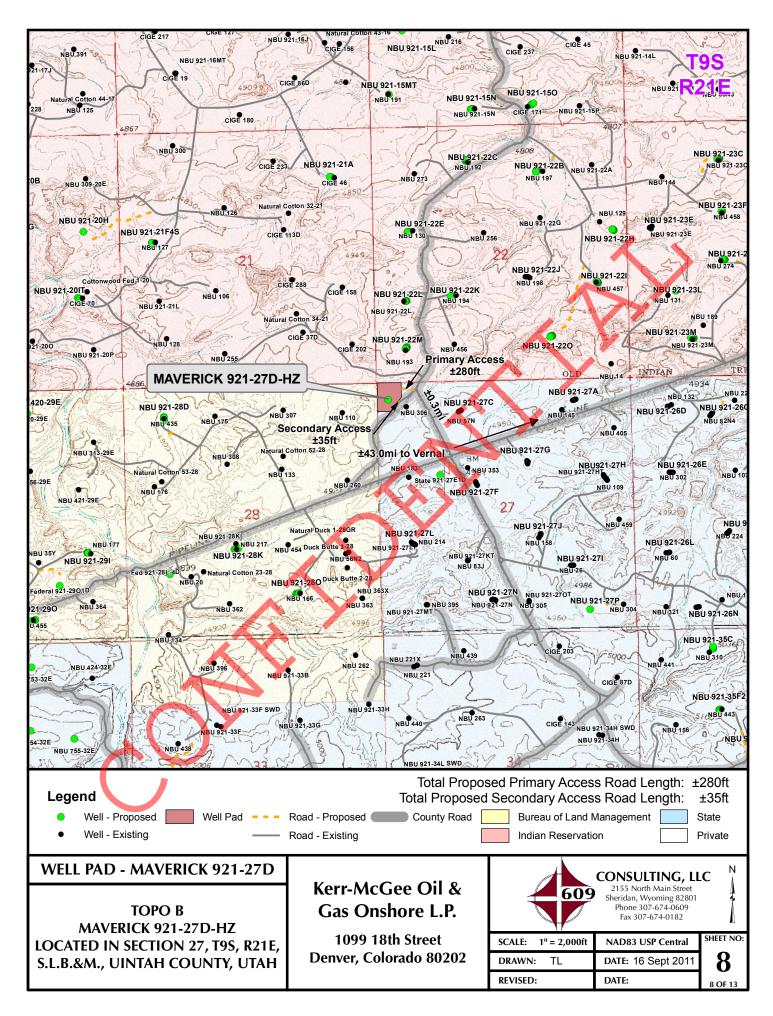
and surveying, inc. - VERNAL, UTAH 84078

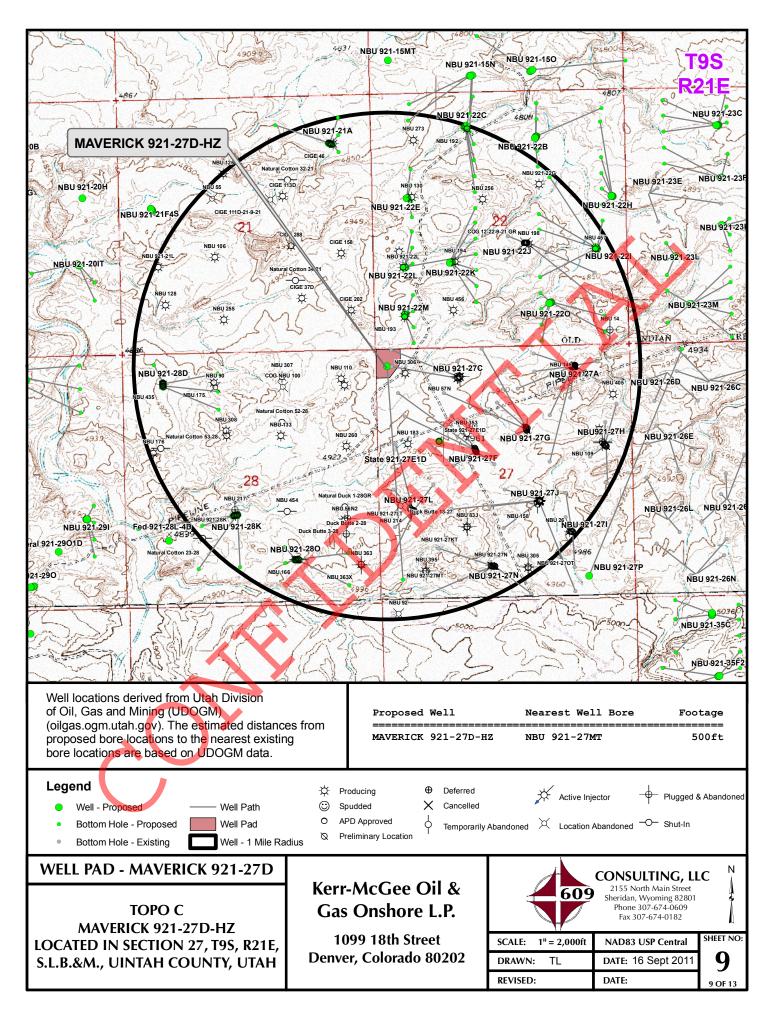
DATE PHOTOS TAKEN: 09-09-11	PHOTOS TAKEN BY: M.S.B.	SHEE
DATE DRAWN: 09-13-11	DRAWN BY: M.W.W.	
Date Last Revised:		6.0

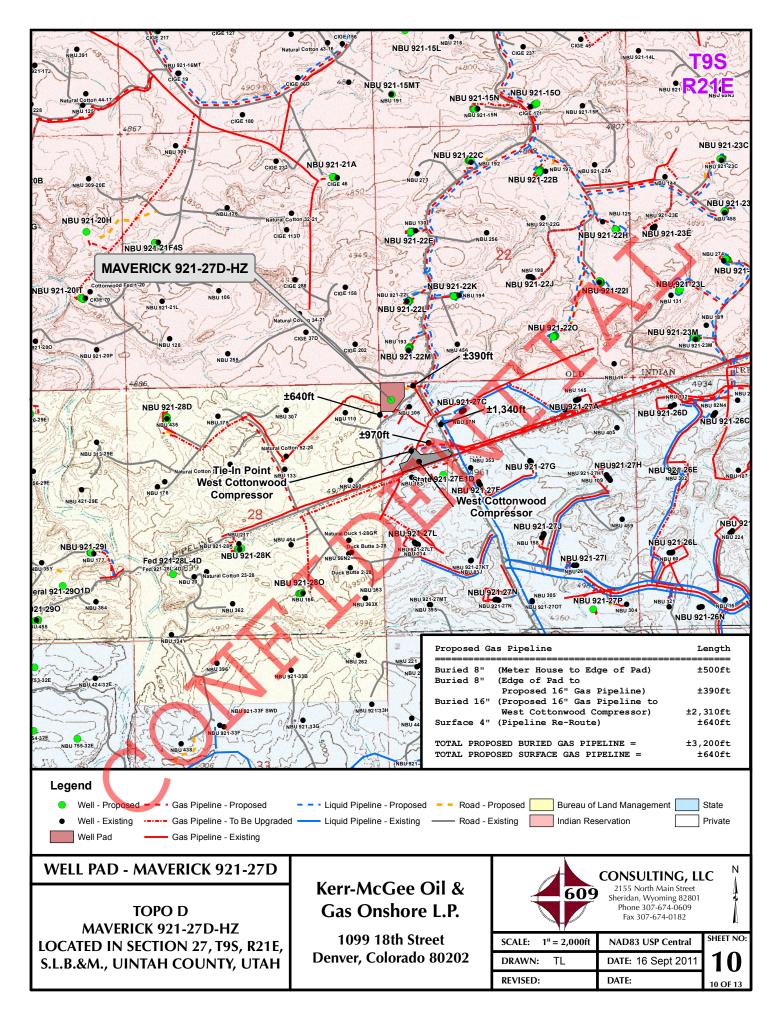
ET NO: h 6 OF 13

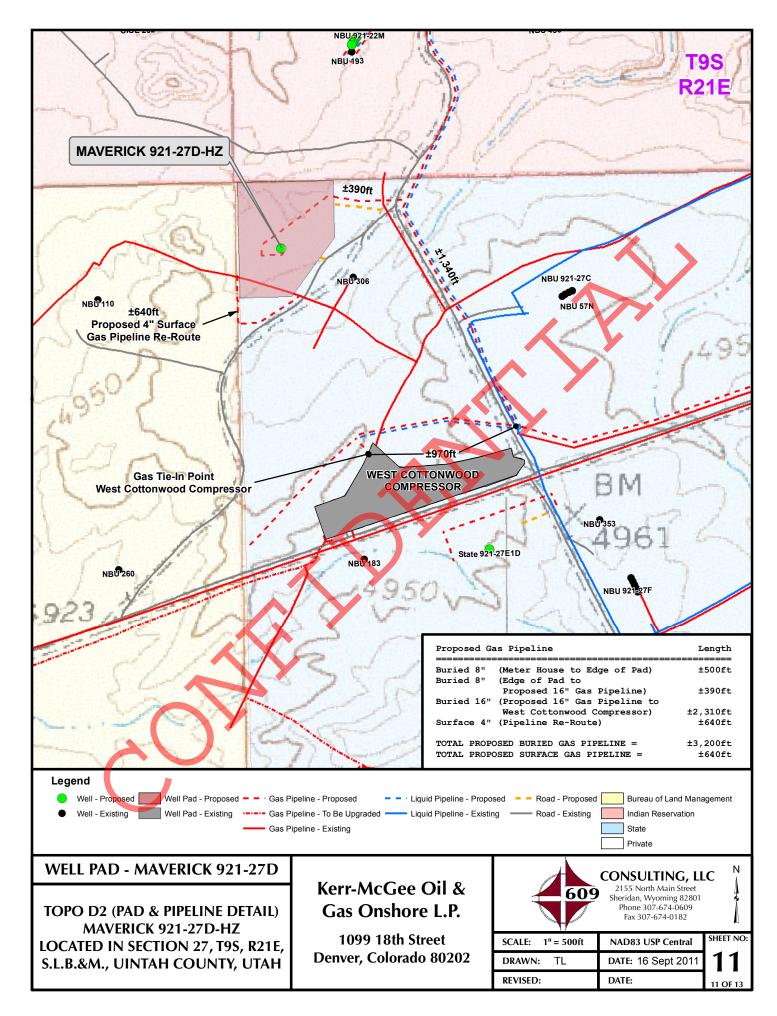
RECEIVED: October 04, 2011

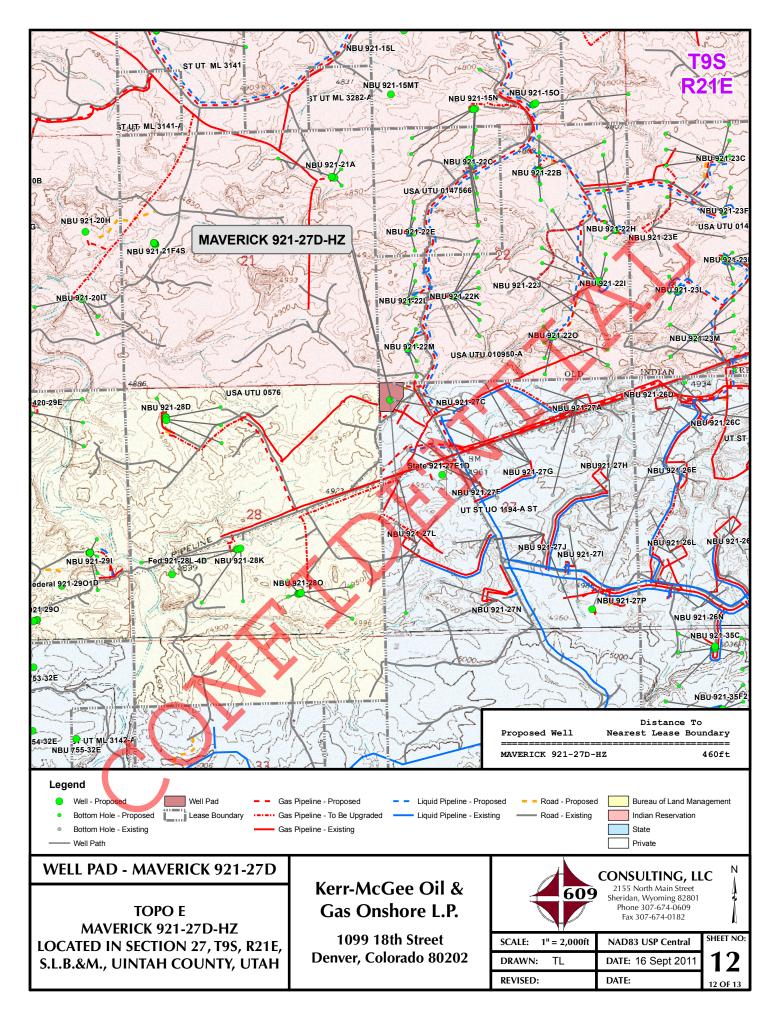












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – MAVERICK 921-27D WELL – MAVERICK 921-27D-HZ Section 27, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 17.7 miles to a Class D County Road to the southwest. Exit right and proceed in a southwesterly direction along the Class D County Road approximately 1.8 miles to a second Class D County Road to the north. Exit right and proceed in a northerly direction along the second Class D County Road approximately 0.3 miles to the proposed primary access road. Follow road flags in a northwesterly direction approximately 280 feet the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 43.4 miles in a southerly direction.



SHEET 13 OF 13

US ROCKIES REGION PLANNING

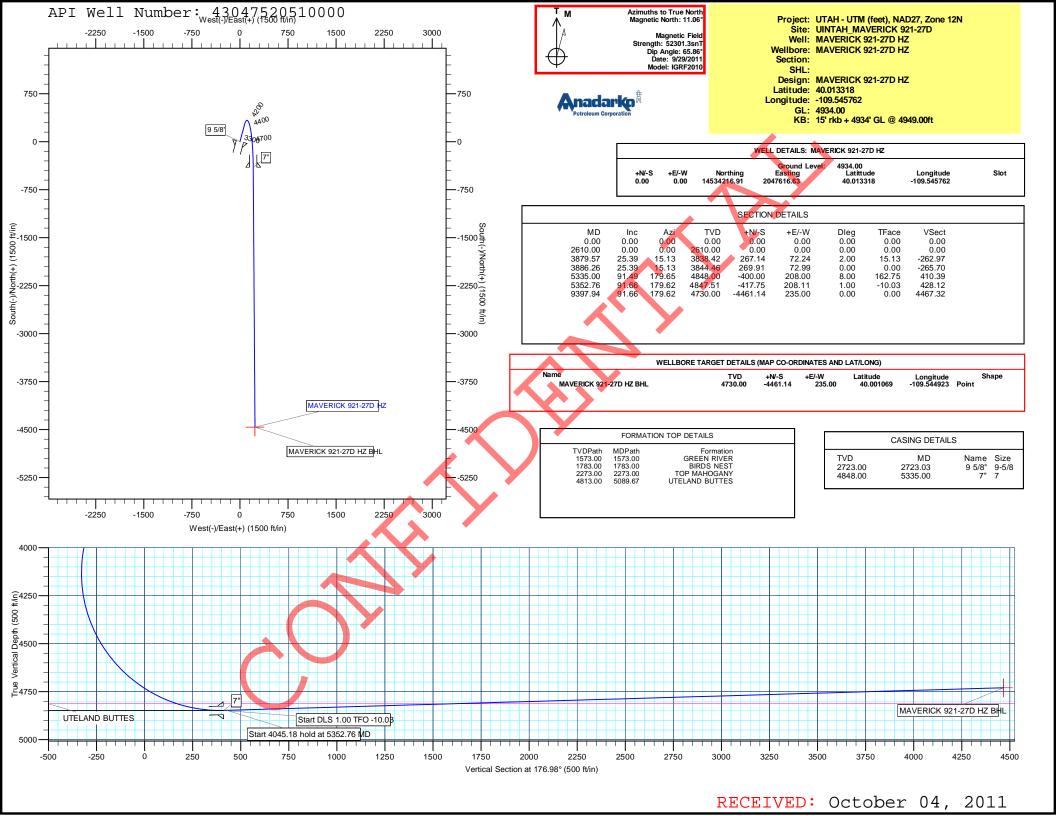
UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MAVERICK 921-27D MAVERICK 921-27D HZ

MAVERICK 921-27D HZ

Plan: MAVERICK 921-27D HZ

Standard Planning Report

29 September, 2011



Planning Report

MD Reference:

Database: edmp Company:

Design:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

Project: Site: UINTAH_MAVERICK 921-27D Well: MAVERICK 921-27D HZ Wellbore: MAVERICK 921-27D HZ

Local Co-ordinate Reference: TVD Reference:

North Reference: **Survey Calculation Method:** Well MAVERICK 921-27D HZ 15' rkb + 4934' GL @ 4949.00ft 15' rkb + 4934' GL @ 4949.00ft

40.013318

0.94

-109.545762

True

Minimum Curvature

Project

Universal Transverse Mercator (US Survey Feet) Map System:

MAVERICK 921-27D HZ

NAD 1927 (NADCON CONUS) Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

UTAH - UTM (feet), NAD27, Zone 12N

System Datum:

Mean Sea Level

Site UINTAH_MAVERICK 921-27D

Northing: 14,534,216.91 usft Site Position: Latitude: From: Lat/Long Easting: 2,047,616.63 usft Longitude:

0.00 ft Slot Radius: 13-3/16 " Grid Convergences **Position Uncertainty:**

Well MAVERICK 921-27D HZ

14,534,216.91 usft **Well Position** +N/-S 0.00 ft Northing: Latitude: 40.013318 +E/-W 0.00 ft Easting: 2,047,616.63 usft Longitude: -109.545762 **Position Uncertainty** 0.00 ft Wellhead Elevation: Ground Level: 4,934.00 ft

MAVERICK 921-27D HZ Wellbore Declination Magnetics **Model Name** Sample Date Dip Angle Field Strength (°) (nT) IGRF2010 9/29/2011 11.06 65.86 52.301

MAVERICK 921-27D HZ Design Audit Notes: Version: PLAN Tie On Depth: 0.00 Phase: **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 176.98

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,610.00	0.00	0.00	2,610.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,879.57	25.39	15.13	3,838.42	267.14	72.24	2.00	2.00	0.00	15.13	
3,886.26	25.39	15.13	3,844.46	269.91	72.99	0.00	0.00	0.00	0.00	
5,335.00	91.49	179.65	4,848.00	-400.00	208.00	8.00	4.56	11.36	162.75	
5,352.76	91.66	179.62	4,847.51	-417.75	208.11	1.00	0.98	-0.17	-10.03	
9,397.94	91.66	179.62	4,730.00	-4,461.14	235.00	0.00	0.00	0.00	0.00	MAVERICK 921-27

Planning Report

Database: edmp Company: US RO

Project:

Site:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

UINTAH_MAVERICK 921-27D

Well: MAVERICK 921-27D HZ
Wellbore: MAVERICK 921-27D HZ
Design: MAVERICK 921-27D HZ

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MAVERICK 921-27D HZ 15' rkb + 4934' GL @ 4949.00ft 15' rkb + 4934' GL @ 4949.00ft

True

Minimum Curvature

esign:	MAVERICK 92	21-27D HZ							
lanned Survey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	+00.00	0.00	0.00	0.00		0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00		0.00	0.00
300.00			300.00				· //		
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00		0.00							
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,573.00	0.00	0.00	1,573.00	0.00	0.00	0.00	0.00	0.00	0.00
GREEN RIVE	R					Y			
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
,	0.00		1,783.00	0.00	0.00	0.00	0.00	0.00	0.00
1,783.00	0.00	0.00	1,763.00	0.00	0.00	0.00	0.00	0.00	0.00
BIRDS NEST									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
,									
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,273.00	0.00	0.00	2,273.00	0.00	0.00	0.00	0.00	0.00	0.00
TOP MAHOG	ΔΝΥ								
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,610.00	0.00	0.00	2,610.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.		3.00	,	2.00	3.00	2.00	3.00	3.00	
2.700.00		15 12	2,699.99	1.26	0.37	1 24	2.00	2.00	0.00
,	1.80	15.13	,	1.36	0.37	-1.34			
2,723.03	2.26	15.13	2,723.00	2.15	0.58	-2.12	2.00	2.00	0.00
9 5/8"									
2,800.00	3.80	15.13	2,799.86	6.08	1.64	-5.99	2.00	2.00	0.00
2,900 <mark>.0</mark> 0	5.80	15.13	2,899.51	14.16	3.83	-13.94	2.00	2.00	0.00
3,000.00	7 00	15 10	2 000 00	25.59	6.00	OE 10	2.00	2.00	0.00
	7.80	15.13	2,998.80		6.92	-25.19	2.00	2.00	0.00
3,100.00	9.80	15.13	3,097.61	40.35	10.91	-39.72	2.00	2.00	0.00
3,200.00	11.80	15.13	3,195.84	58.44	15.80	-57.53	2.00	2.00	0.00
3,300.00	13.80	15.13	3,293.35	79.83	21.59	-78.58	2.00	2.00	0.00
3,400.00	15.80	15.13	3,390.03	104.48	28.25	-102.85	2.00	2.00	0.00
3,500.00	17.80	15.13	3,485.75	132.38	35.80	-130.32	2.00	2.00	0.00
3,600.00			3, 4 65.75 3,580.41						
	19.80	15.13		163.49	44.21	-160.94	2.00	2.00	0.00
3,700.00	21.80	15.13	3,673.89	197.77	53.48	-194.68	2.00	2.00	0.00
3,800.00	23.80	15.13	3,766.07	235.18	63.60	-231.50	2.00	2.00	0.00
3,879.57	25.39	15.13	3,838.42	267.14	72.24	-262.97	2.00	2.00	0.00
Start 6.69 hol	d at 3879.57 MD)							
2 000 00	05.00	45.40	2 044 40	060.04	70.00	205 70	0.00	0.00	0.00
3,886.26	25.39	15.13	3,844.46	269.91	72.99	-265.70	0.00	0.00	0.00
	0 TFO 162.75								

Planning Report

Database: edmp

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_MAVERICK 921-27D

Well: MAVERICK 921-27D HZ
Wellbore: MAVERICK 921-27D HZ
Design: MAVERICK 921-27D HZ

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MAVERICK 921-27D HZ 15' rkb + 4934' GL @ 4949.00ft 15' rkb + 4934' GL @ 4949.00ft

True

Minimum Curvature

esign:	MAVERICK 92	21-27D HZ							
lanned Survey									
iailileu Suivey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
3,900.00	24.34	15.92	3,856.93	275.48	74.54	-271.18	8.00	-7.62	5.76
4,000.00	16.91	24.41	3,950.48	308.59	86.22	-303.63	8.00	-7.44	8.49
4,100.00	10.31	44.30	4,047.67	328.27	98.50	-322.63	8.00	-6.60	19.89
4,200.00	7.34	95.04	4,146.61	334.12	111.13	-327.81	8.00	-2.96	50.74
4,300.00	11.35	139.76	4,245.38	326.03	123.87	-319.06	8.00	4.01	44.72
4,400.00	18.20	156.50	4,342.06	304.16	136.47	-296.56	8.00	6.84	16.74
4,500.00	25.70	164.01	4,434.77	268.94	148.69	-260.75	8.00	7.51	7.51
4,600.00	33.43	168.26	4,521.69	221.05	160.29	-212.31	8.00	7.72	4.25
4,700.00	41.25	171.05	4,601.14	161.43	171.04	-152.20	8.00	7.82	2.79
4,800.00	49.11	173.08	4,671.58	91.22	180.74	-81.59	8.00	7.87	2.03
4,900.00	57.01	174.68	4,731.63	11.81	189.19	-1.84	8.00	7.90	1.60
5,000.00	64.92	176.02	4,780.12	-75.27	196.23	85.49	8.00	7.91	1.33
5,089.67	72.03	177.08	4,813.00	-158.48	201.23	168.84	8.00	7.92	1.18
UTELAND B									
5,100.00	72.85	177.19	4,816.12	-168.32	201.72	178.70	8.00	7.93	1.12
5.200.00	80.78	178.27	4,838.91	-265.53	205.56	275.97	8.00	7.93	1.08
5,300.00	88.71	179.29	4,848.06	-365.00	207.68	375.42	8.00	7.93	1.03
5,335.00	91.49	179.65	4,848.00	-400.00	208.00	410.38	8.00	7.93	1.02
	00 TFO -10.03 - 7		.,						
5,352.76	91.66	179.62	4,847.51	-417.75	208.11	428.12	1.00	0.99	-0.17
,	8 hold at 5352.76		.,0		200.			0.00	
5,400.00	91.66	179.62	4,846.14	-464.97	208.43	475.29	0.00	0.00	0.00
5,500.00	91.66	179.62	4,843.23	-564.92	209.09	575.14	0.00	0.00	0.00
5,600.00	91.66	179.62	4,840.33	-664.88	209.76	674.99	0.00	0.00	0.00
5,700.00	91.66	179.62	4,837.42	-764.84	210.42	774.85	0.00	0.00	0.00
5,800.00	91.66	179.62	4,834.52 4,831.61	-864.79 -9 64.75	211.09	874.70	0.00	0.00	0.00
5,900.00	91.66	179.62		-904.75	211.75	974.55	0.00	0.00	0.00
6,000.00	91.66	179.62	4,828.71	-1,064.70	212.41	1,074.40	0.00	0.00	0.00
6,100.00	91.66	179.62	4,825.80	-1,164.66	213.08	1,174.25	0.00	0.00	0.00
6,200.00	91.66	179.62	4,822.90	-1,264.61	213.74	1,274.11	0.00	0.00	0.00
6,300.00	91.66	179.62	4,819.99	-1,364.57	214.41	1,373.96	0.00	0.00	0.00
6,400.00	91.66	179.62	4,817.09	-1,464.52	215.07	1,473.81	0.00	0.00	0.00
6,500.00	91.66	179.62	4,814.18	-1,564.48	215.74	1,573.66	0.00	0.00	0.00
6,600.00	91.66	179.62	4,811.28	-1,664.44	216.40	1,673.51	0.00	0.00	0.00
6,700.00	91.66	179.62	4,808.37	-1,764.39	217.07	1,773.37	0.00	0.00	0.00
6,800.00	91.66	179.62	4,805.47	-1,864.35	217.73	1,873.22	0.00	0.00	0.00
6,900.00	91.66	179.62	4,802.56	-1,964.30	218.40	1,973.07	0.00	0.00	0.00
7,000.00	91.66	179.62	4,799.66	-2,064.26	219.06	2,072.92	0.00	0.00	0.00
7,100.00	91.66	179.62	4,796.75	-2,164.21	219.73	2,172.78	0.00	0.00	0.00
7,200.00	91.66	179.62	4,793.85	-2,264.17	220.39	2,272.63	0.00	0.00	0.00
7,300.00	91.66	179.62	4,790.94	-2,364.12	221.05	2,372.48	0.00	0.00	0.00
7,400.00	91.66	179.62	4,788.04	-2,464.08	221.72	2,472.33	0.00	0.00	0.00
7,500.00	91.66	179.62	4,785.13	-2,564.04	222.38	2,572.18	0.00	0.00	0.00
7,500.00	91.66	179.62	4,782.23	-2,663.99	222.36	2,672.16	0.00	0.00	0.00
7,700.00	91.66	179.62	4,779.32	-2,763.95	223.71	2,771.89	0.00	0.00	0.00
7,800.00	91.66	179.62	4,776.42	-2,863.90	224.38	2,871.74	0.00	0.00	0.00
7,900.00	91.66	179.62	4,773.51	-2,963.86	225.04	2,971.59	0.00	0.00	0.00
,									
8,000.00	91.66	179.62	4,770.61	-3,063.81	225.71	3,071.44	0.00	0.00	0.00
8,100.00	91.66	179.62	4,767.70	-3,163.77	226.37	3,171.30	0.00	0.00	0.00
8,200.00	91.66 91.66	179.62 179.62	4,764.80	-3,263.73 -3,363.68	227.04 227.70	3,271.15	0.00	0.00	0.00
8,300.00 8,400.00	91.66 91.66	179.62	4,761.90 4,758.99	-3,363.68 -3,463.64	228.36	3,371.00	0.00 0.00	0.00 0.00	0.00 0.00
						3,470.85			
8,500.00	91.66	179.62	4,756.09	-3,563.59	229.03	3,570.71	0.00	0.00	0.00

Planning Report

Database: e Company: U

edmp

US ROCKIES REGION PLANNING

Site: Well: Wellbore: Design:

Project:

UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MAVERICK 921-27D MAVERICK 921-27D HZ

MAVERICK 921-27D HZ MAVERICK 921-27D HZ Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well MAVERICK 921-27D HZ

15' rkb + 4934' GL @ 4949.00ft 15' rkb + 4934' GL @ 4949.00ft

15' rkb + 4934 True

Minimum Curvature

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,600.00	91.66	179.62	4,753.18	-3,663.55	229.69	3,670.56	0.00	0.00	0.00
8,700.00	91.66	179.62	4,750.28	-3,763.50	230.36	3,770.41	0.00	0.00	0.00
8,800.00	91.66	179.62	4,747.37	-3,863.46	231.02	3,870.26	0.00	0.00	0.00
8,900.00	91.66	179.62	4,744.47	-3,963.41	231.69	3,970.11	0.00	0.00	0.00
9,000.00	91.66	179.62	4,741.56	-4,063.37	232.35	4,069.97	0.00	0.00	0.00
9,100.00	91.66	179.62	4,738.66	-4,163.33	233.02	4,169.82	0.00	0.00	0.00
9,200.00	91.66	179.62	4,735.75	-4,263.28	233.68	4,269.67	0.00	0.00	0.00
9,300.00	91.66	179.62	4,732.85	-4,363.24	234.35	4,369.52	0.00	0.00	0.00
9,397.94	91.66	179.62	4,730.00	-4,461.14	235.00	4,467.32	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
MAVERICK 921-27D HZ - plan hits target cent - Point	0.00 er	0.00	4,730.00	-4,461.14	235.00	14,529,760.21	2,047,924.41	40.001069	-109.544923

Casing Points						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
	2,723.03 5,335.00	2,723.00 4,848.00	9 5/8" 7"	9-5/8 7	12-1/4 8-3/4	

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,573.00	1,573.00 GF	REEN RIVER		0.00	
	1,783.00	1,7 <mark>83</mark> .00 BII	RDS NEST		0.00	
	2,273.00	2,2 <mark>73</mark> .00 TC	P MAHOGANY		0.00	
	5,089.67	4,813.00 UT	ELAND BUTTES		0.00	

Plan Annotations						
Mad		Vartical	Lasal Casus	limata a		
	asured	Vertical	Local Coord			
	epth	Depth	+N/-S	+E/-W		
	(ft)	(ft)	(ft)	(ft)	Comment	
2	2,610.00	2,610.00	0.00	0.00	Start Build 2.00	
3	3,879.57	3,838.42	267.14	72.24	Start 6.69 hold at 3879.57 MD	
3	3,886.26	3,844.46	269.91	72.99	Start DLS 8.00 TFO 162.75	
5	5,335.00	4,848.00	-400.00	208.00	Start DLS 1.00 TFO -10.03	
5	5,352.76	4,847.51	-417.75	208.11	Start 4045.18 hold at 5352.76 MD	
9	,397.94	4,730.00	-4,461.14	235.00	TD at 9397.94	

MAVERICK 921-27D-HZ

Surface Use Plan of Operations

1 of 7

MAVERICK 921-27D-HZ

Surface: 384 FNL / 252 FWL NWNW BHL: 460 FSL / 460 FWL SWSW

Mineral Lease: UT ST UO 1194A ST

Uintah County, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

Two New Access roads are proposed. (see Topo Map B). The Primary Access road length will be 280' +/-. The Secondary Access road length will be 35' +/- and will be fully reclaimed upon completion of the well. Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This will be a new pad.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point at the West Cottonwood Compressor is ± 3200 ' and the individual segments are broken up as follows:

±500' (0.09 miles) –New 8" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

±390' (0.07 miles) –New 8" buried gas pipeline from the edge of pad to the proposed 16" gas gathering Pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

±2,310' (0.4 miles) –New 16" buried gas pipeline from the 8" tie-in to the West Cottonwood Compressor. Please refer to Topo D2 - Pad and Pipeline Detail.

An existing 4" Surface Gas Pipeline will be re-routed around the pad. The total distance of the re-route will be ±640 Please refer to Topo D2-Pad and Pipeline Detail.

Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30 right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Ouray #1 SWD in Sec. 1 T9S R21E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 33 T9S R21E NBU 921-34L SWD in Sec. 34 T9S R21E

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

MAVERICK 921-27D-HZ

Surface Use Plan of Operations

4 of 7

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

MAVERICK 921-27D-HZ

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/

completely frozen will not be used for packfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

6 of 7

MAVERICK 921-27D-HZ

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

L. Other Information:

None

M. Lessee's or Operators' Representative & Certification:

Andy Lytle Regulatory Analyst I Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6100 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations. Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

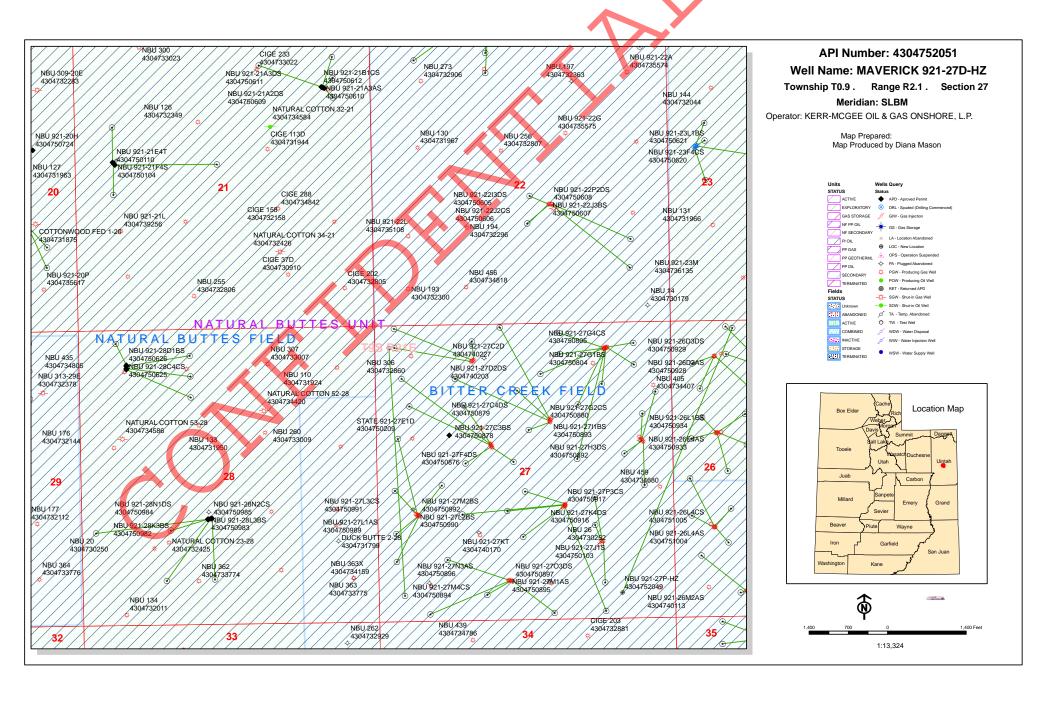
Kerr-McGee Oil & Gas Onshore LPis considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

MAVERICK 921-27D-HZ

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Andy Lytle October 4, 2011
Date



From: Jim Davis

To: Bonner, Ed; Garrison, LaVonne; Hackford, David; Hill, Brad; Mason, D...

CC: Julie Jacobsen; Lytle, Andy

Date: 10/17/2011 4:33 PM **Subject:** APD approvals

The following APD have been approved by SITLA including arch clearance. Paleo clearance is granted with the following stipulations as recommended in the paleo reports. The NBU 921-27P-HZ will require full paleo monitoring, the MAVERICK 921-26B-HZ and MAVERICK 921-27D-HZ will require spot monitoring.

4304752049 NBU 921-27P-HZ

4304752050 MAVERICK 921-26B-HZ 4304752051 MAVERICK 921-27D-HZ

Thanks.

-Jim

Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov

Phone: (801) 538-5156

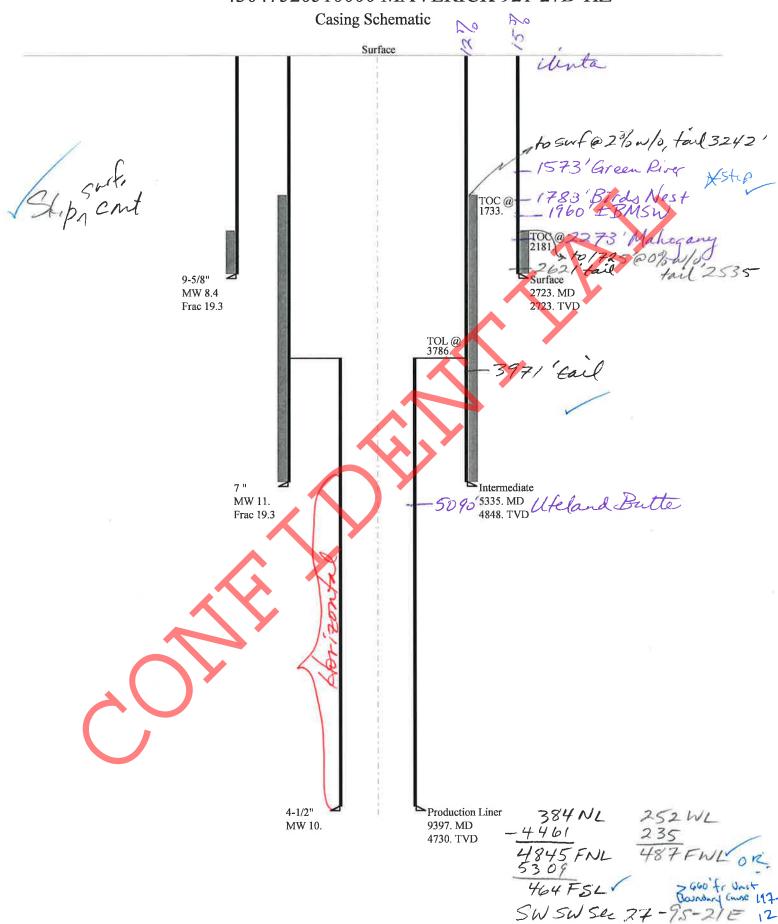
BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. MAVERICK 921-27D-HZ 43047520510000

		1						
Well Name		KERR-MCG	SEE	OIL & GAS O	NS	SHORE, L.P. M	lA۱	VERICK 921-2
String		SURF	Ì	<u>I1</u>		L1		
Casing Size(")		9.625	Ī	7.000		4.500		
Setting Depth (TVD)		2723	ī	4848	Ī	4730	Ī	
Previous Shoe Setting Dept	th (TVD)	0	ī	2723	1	4848	Ī	
Max Mud Weight (ppg)		8.4	ī	11.0	Ī	10.0	T	
BOPE Proposed (psi)		500	ī	5000	Ī	5000	T	
Casing Internal Yield (psi)		3520	ī	9950	1	10690	Ī	
Operators Max Anticipated	d Pressure (psi)	2081	Ì			8.5		
Calculations	SUR	F String			_	9.62	25	i"
Max BHP (psi)		.052*Set	ttin	ng Depth*M	W	1189	=	
								BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max	x BHP-(0.12	2*5	Setting Dept	h)	862	_	NO air drill
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22	2*5	Setting Dept	h)	590	=	NO
								*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting D	epth - Previ	ou	s Shoe Dept	h)	590		NO OK for area
Required Casing/BOPE Te	est Pressure=					2464	=	psi
*Max Pressure Allowed @	Previous Casing Shoe=				_	0		psi *Assumes lpsi/ft frac gradient
							4	
Calculations	I1	String				7.00	00	
Max BHP (psi)		.052*Set	ttin	ng Depth*M	W	2773		
				4				BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max	x BHP-(0.12	2*5	Setting Dept	h)	= 2191		YES
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22	2*5	Setting Depti	h)	1706		YES OK
								*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting D	epth - Previ	ou	s Shoe Dept	h)	2306		YES OK
Required Casing/BOPE Te	est Pressure=					4848		psi
*Max Pressure Allowed @	Previous Casing Shoe=					2723		psi *Assumes 1psi/ft frac gradient
Calculations	. 11	String	-		_	4.50	nη	An
Max BHP (psi)	Li	_	tin	ng Depth*M	(X/		=	
(psi)		.052 500		ig Deptii W		2460	_	BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max	x BHP-(0.12	2*5	Setting Dept	h)	= 1892	=	YES YES
MASP (Gas/Mud) (psi)			_	Setting Dept	_	1	╡	
(Gas/Mud) (psi)	IVIU	X DITI (0.22		octting Depti		= 1419	_	YES OK Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-,22*(Setting D	epth - Previ	011	s Shoe Dent	h)	= 2486	=	YES OK
Required Casing/BOPE Te		-r 1107F		2 гери	/	1 - 11	#	psi
*Max Pressure Allowed @					_	4730	#	psi *Assumes 1psi/ft frac gradient
	Trevious Casing Shoc-					4848	_	psi Assumes ipsiri nae gradieni
Calculations	S	tring						"
Max BHP (psi)		.052*Set	ttin	ng Depth*M	W	=		
					_			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max	x BHP-(0.12	2*5	Setting Dept	h)	=		NO
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22	2*5	Setting Dept	h)	=		NO
								*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting D	epth - Previ	ou	s Shoe Dept	h)	=		NO
Required Casing/BOPE Te	est Pressure=						Ī	psi
						-		-

*Max Pressure Allowed @ Previous Casing Shoe= psi *Assumes 1psi/ft frac gradient



43047520510000 MAVERICK 921-27D-HZ



43047520510000 MAVERICK 921-27D-HZ Well name:

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Surface Project ID: String type: 43-047-52051

UINTAH COUNTY Location:

Environment: Design parameters: Minimum design factors: H2S considered?

Collapse Collapse:

Mud weight: 8.400 ppg Design factor Design is based on evacuated pipe.

Bottom hole temperature: 112 °F Temperature gradient

1.40 °F/100ft

Surface temperature:

Minimum section length: 100 ft

Burst:

1.00 Cement top:

1.125

Design factor 2,181 ft

Burst

Max anticipated surface

pressure: 2,189 psi 0.120 psi/ft Internal gradient:

Calculated BHP 2,515 psi

No backup mud specified.

Tension: 1.80 (J) 8 Round STC: 8 Round LTC: 1.70 (J) Buttress: 1.60 (J) 1.50 (J) Premium: Body yield: 1.50 (B)

Tension is based on air weight. Neutral point:

Directional Info - Build & Hold

Kick-off point 2610 ft Departure at shoe: 2ft Maximum dogleg: 2 °/100ft

No 74 °F

Inclination at shoe: 2.26° Re subsequent strings:

Next setting depth: 4.848 ft 11.000 ppg Next mud weight: Next setting BHP: 2,385 ft 2,770 psi

Fracture mud wt: 19.250 ppg 2,723 ft Fracture depth: Injection pressure: 2,723 psi

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.	
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost	
	(ft)	(in)	(lbs/ft)		Y	(ft)	(ft)	(in)	(\$)	
1	2723	9.625	36.00	J-55	LT&C	2723	2723	8.796	22267	
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension	
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design	
-	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor	
1	1188	1974	1.662	2515	3520	1.40	98	453	4.62 J	

Prepared Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: December 28,2011 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2723 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:

43047520510000 MAVERICK 921-27D-HZ

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Intermediate

Project ID:

43-047-52051

Location:

UINTAH COUNTY

> Minimum design factors: **Environment:**

> > 1.125

Collapse

Mud weight: 11.000 ppg

Design is based on evacuated pipe.

H2S considered?

No Surface temperature: 74 °F

142 °F Bottom hole temperature: 1.40 °F/100ft Temperature gradient

Minimum section length:

100 ft

Burst:

Collapse:

Design factor

Design factor

1.00

1.80 (J)

1.70 (J)

1.60 (J)

1.50 (J)

1.50 (B)

Design

Factor

2.29

Cement top:

1,733 ft

Burst

Max anticipated surface

No backup mud specified.

pressure: Internal gradient: Calculated BHP

Design parameters:

3,754 psi 0.120 psi/ft

4,336 psi

Design

Factor

2.718

Body yield:

Load

(psi)

4336

Tension: 8 Round STC:

8 Round LTC:

Buttress: Premium:

Tension is based on air weight. Neutral point: 4,117 ft Directional Info - Build & Hold

Kick-off point 2610 ft Departure at shoe: 451 ft

Maximum dogleg: 8 °/100ft 91.49° Inclination at shoe:

Strength

(kips)

693

Re subsequent strings:

Next setting depth: Next mud weight:

9,397 ft 10.000 ppg 4,882 psi

Next setting BHP: Fracture mud wt: Fracture depth: Injection pressure:

Load

(kips)

126

19.250 ppg 5,335 ft 5,335 psi

Design

Factor

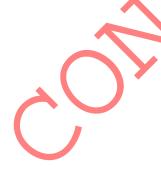
5.50 J

Segment Nominal End True Vert Measured Drift Est. Run Depth Cost Length Size Weight Grade Finish Depth Diameter Seq (ft) (in) (lbs/ft) (ft) (ft) (in) (\$) HCP-110 5335 55457 5335 26.00 LT&C 4848 6.151 1 7 Collapse Collapse Collapse Burst Burst **Burst Tension Tension Tension** Run

Strength

(psi)

9950



Strength

(psi)

7530

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: December 28,2011 Salt Lake City, Utah

Seq

1

Load

(psi)

2770

Collapse is based on a vertical depth of 4848 ft, a mud weight of 11 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:

43047520510000 MAVERICK 921-27D-HZ

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Production Liner

Project ID: 43-047-52051

Location:

UINTAH COUNTY

Design parameters:

Collapse

Mud weight: 10.000 ppg Design is based on evacuated pipe.

Minimum design factors: Collapse:

Design factor 1.125 **Environment:**

Liner top:

Kick-off point

Departure at shoe:

Maximum dogleg:

Inclination at shoe:

H2S considered? No 74 °F Surface temperature:

140 °F Bottom hole temperature: 1.40 °F/100ft Temperature gradient.

Minimum section length: 1,000 ft

Directional Info - Build & Hold

Burst:

Design factor

1.00

1.80 (J)

1.80 (J)

1.60 (J)

1.50 (J)

1.60 (B)

3,786 ft

2610 ft

4466 ft

91.66°

8 °/100ft

Burst

Max anticipated surface

pressure: Internal gradient: Calculated BHP

1,417 psi 0.220 psi/ft

2,457 psi

No backup mud specified.

Tension:

8 Round STC: 8 Round LTC:

Buttress:

Premium:

Body yield:

Tension is based on air weight. Neutral point: 4,877 ft

Estimated cost

61,497 (\$)

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	1600	4.5	11.60	HCP-110	DQX	4846	5400	3.875	42240
1	3997	4.5	11.60	HCP-110	LT&C	4730	9397	3.875	19257
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	2517	8650	3.436	2483	10690	4.31	11.2	367.2	32.83 B
1	2457	8650	3.520	2483	10690	4.31	-1.3	279	99.99 J

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: December 28,2011 Salt Lake City, Utah

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 4730 ft, a mud weight of 10 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name MAVERICK 921-27D-HZ

API Number 43047520510000 APD No 4738 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 NWNW Sec 27 Tw 9.0S Rng 21.0E 384 FNL 252 FWL

GPS Coord (UTM) 624116 4430041 Surface Owner

Participants

Andy Lytle, Sheila Wopsock, Charles Chase, Grizz Oleen, Jaime Scharnowski, Doyle Holmes, (Kerr McGee). John Slaugh, Mitch Batty, (Timberline). Jim Davis (SITLA). Ben Williams (DWR). David Hackford, (DOGM).

Regional/Local Setting & Topography

This is a proposed single well location. Both the surface and minerals are owned by SITLA. The general area is the central portion of the Natural Buttes Unit in a major un-named drainage west of the lower portion of the Sand Wash drainage of Uintah, County, approximately 25 air miles and 43 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the area is characterized by open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. There is an occasional constructed pond furnishing water for antelope and livestock.

Surface Use Plan

Current Surface Use

Wildlfe Habitat Grazing

New Road
Miles

Well Pad

Src Const Material Surface Formation

0.2 Width 500 Length 600 Onsite UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass, annuals and curly Vegetation is a salt desert shrub type. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, coyote, raptors, small mammals and birds.

Soil Type and Characteristics

Rocky sandy clay loam.

2/21/2012 Page 1

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? Y

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)
Distance to Surface Water (feet)
Dist. Nearest Municipal Well (ft)
Distance to Other Wells (feet)
Native Soil Type
Fluid Type
Drill Cuttings
Annual Precipitation (inches)
Affected Populations
Presence Nearby Utility Conduits

Final Score

Sensitivity Level

Characteristics / Requirements

This well will not have a reserve pit.

Closed Loop Mud Required? Y Liner Required? Liner Thickness Pit Underlayment Required?

Other Observations / Comments

Anadarko proposes to drill this well with a horizontal section of the well bore reaching approx. .75 miles. The pad will be approx. ten acres in size. This excess size will be necessary to accommodate 180 frac tanks during the initial completion of the well. Because of the anticipated congestion, two access roads will be necessary.

David Hackford **Evaluator**

10/12/2011

luator Date / Time

2/21/2012 Page 2

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

Page 1

APD NoAPI WellNoStatusWell TypeSurf Owner CBM473843047520510000LOCKEDGWSNo

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P. Surface Owner-APD

Well Name MAVERICK 921-27D-HZ Unit

Field NATURAL BUTTES Type of Work DRILL

Location NWNW 27 9S 21E S 384 FNL 252 FWL GPS Coord

(UTM) 624062E 4430232N

Geologic Statement of Basis

Kerr McGee proposes to set 2,719' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 1,960'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 27. The well is listed as 200 feet deep and used for oilfield drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect any usable ground water.

Brad Hill **APD Evaluator**

10/18/2011 **Date / Time**

Surface Statement of Basis

This is a proposed single well location. Both the surface and minerals are owned by SITLA. The general area is the central portion of the Natural Buttes Unit in a major un-named drainage west of the lower portion of the Sand Wash drainage of Uintah, County, approximately 25 air miles and 43 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the area is characterized by open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. There is an occasional constructed pond furnishing water for antelope and livestock.

David Hackford
Onsite Evaluator

10/12/2011 **Date / Time**

Conditions of Approval / Application for Permit to Drill

Category Condition

Pits A closed loop mud circulation system is required for this location.

RECEIVED: February 21, 2012

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/4/2011 API NO. ASSIGNED: 43047520510000

WELL NAME: MAVERICK 921-27D-HZ

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6100

CONTACT: Andy Lytle

PROPOSED LOCATION: NWNW 27 090S 210E Permit Tech Review:

> SURFACE: 0384 FNL 0252 FWL **Engineering Review:**

> BOTTOM: 0460 FSL 0460 FWL Geology Review:

COUNTY: UINTAH LATITUDE: 40.01318 UTM SURF EASTINGS: 624062.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: UT ST UO 1194A ST PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 3 - State **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED:

✓ PLAT

Bond: STATE - 22013542

Potash

Oil Shale 190-5

Oil Shale 190-3

Oil Shale 190-13

Water Permit: 43-8496

RDCC Review:

Fee Surface Agreement

Intent to Commingle

Commingling Approved

LOCATION AND SITING:

R649-2-3

Unit:

R649-3-2. General

R649-3-3. Exception

Drilling Unit

Board Cause No: Cause 197-12

Effective Date: 1/9/2012

Siting: *See order

R649-3-11. Directional Drill

Comments: Presite Completed

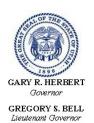
5 - Statement of Basis - bhill 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - hmacdonald Stipulations:

27 - Other - bhill

LONGITUDE: -109.54635

NORTHINGS: 4430232.00

API Well No: 43047520510000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: MAVERICK 921-27D-HZ

API Well Number: 43047520510000 Lease Number: UT ST UO 1194A ST

Surface Owner: STATE
Approval Date: 2/21/2012

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 197-12. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

In accordance with Utah Admin. R.649-3-21, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

API Well No: 43047520510000

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well contact Carol Daniels OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
 - Well Completion Report (Form 8) due within 30 days after completion or plugging

Annound Dw.

API Well No: 43047520510000

Approveu by:

For John Rogers Associate Director, Oil & Gas

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 1194A
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly or reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MAVERICK 921-27D-HZ		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047520510000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0384 FNL 0252 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNW Section:	dian: S	STATE: UTAH	
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
7	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	✓ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
4/26/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
Date or Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
 	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Date.	WILDCAT WELL DETERMINATION	OTHER	OTHER:
Kerr-McGee resp Maverick 921-27 original plan by cor drilling operations Please note there approval. Please f	completed operations. Clearly show a pectfully requests to revise the CD-HZ well location. We wounstructing one 75' X 75' pit to and one 250' x 110' pit for will be NO additional disturbind attached a diagram of out their approval. Thank you	ne pad lay out for the ld like to update the o store cuttings during completion operations. ance from the original ir requested changes. request and has granted	Approved by the Utah Division of Oil, Gas and Mining Date: April 26, 2012 By:
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMB 720 929-6156	ER TITLE Regulatory Analyst	
SIGNATURE	120 323-0130	DATE	
N/A		4/26/2012	



The Utah Division of Oil, Gas, and Mining

- State of UtahDepartment of Natural Resources

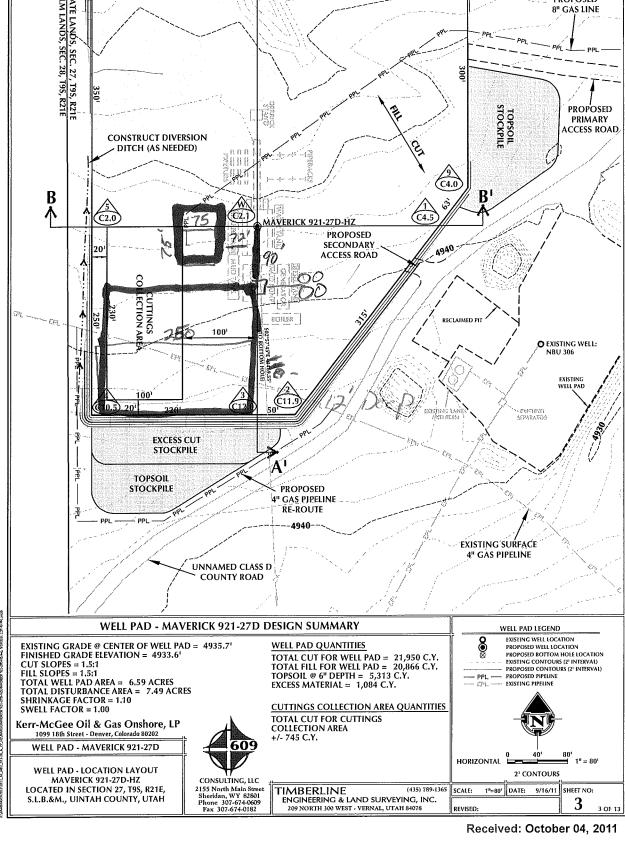
Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047520510000

A synthetic liner with a minimum thickness of 16 mils with a felt subliner if needed shall be properly installed and maintained in the reserve pit.

RECEIVED: Apr. 26, 2012

Sundry Number: 25122 API Well Number: 43047520510000 API Well Number: 43047520510000 PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA
ARE FOR VISUALIZATION PURPOSES ONLY.
ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION. **EXISTING FENCE** TRIBAL LANDS, SEC. 22, T9S, R21E STATE LANDS, SEC. 27, T9S, R21E 220 280 13.8 F8.1 STATE LANÓS, SEC. 27, T9S, R21E BLM LANDS, SEC. 28, T9S, R21E PROPOSED 8" GAS LINE PROPOSED PRIMARY ACCESS ROAD CONSTRUCT DIVERSION DITCH (AS NEEDED) ŽIIII II 9 C4.0 B В (C4.5 C2.1 C2.0 MAVERICK 921-27D-HZ 72 PROPOSED 112 SECONDARY 4940 20 **ACCESS ROAD** COILER 100 EXISTING WELL: EXISTING WELL PAD 100 0.5) 20 **EXCESS CUT** STOCKPILE TOPSOIL STOCKPILE PROPOSED 4" GAS PIPELINE **RE-ROUTE** -4940 EXISTING SURFACE 4" GAS PIPELINE UNNAMED CLASS D **COUNTY ROAD** WELL PAD - MAVERICK 921-27D DESIGN SUMMARY WELL PAD LEGEND EXISTING WELL LOCATION
PROPOSED WELL LOCATION
PROPOSED BOTTOM HOLE LOCATION
EXISTING CONTOURS (2' INTERVAL)
PROPOSED CONTOURS (2' INTERVAL)
PROPOSED PIPELINE
EXISTING DEPLINE EXISTING GRADE @ CENTER OF WELL PAD = 4935.7' FINISHED GRADE ELEVATION = 4933.6' WELL PAD QUANTITIES TOTAL CUT FOR WELL PAD = 21,950 C.Y.
TOTAL FILL FOR WELL PAD = 20,866 C.Y.
TOPSOIL @ 6" DEPTH = 5,313 C.Y.
EXCESS MATERIAL = 1,084 C.Y. CUT SLOPES = 1.5:1 FILL SLOPES = 1.5:1 — PPL — TOTAL WELL PAD AREA = 6.59 ACRES
TOTAL DISTURBANCE AREA = 7.49 ACRES **EXISTING PIPELINE** SHRINKAGE FACTOR = 1.10



	STATE OF UTAH		FORM 9
ι	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 1194A
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MAVERICK 921-27D-HZ		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047520510000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5M&TURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0384 FNL 0252 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	IIP, RANGE, MERIDIAN: 27 Township: 09.0S Range: 21.0E Meri	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
5/17/2012			
☐ DRILLING REPORT	L TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU TRIPLE A BU RAN 14" 36.7# SCHI	COMPLETED OPERATIONS. Clearly show a CKET RIG. DRILLED 20" CON EDULE 10 CONDUCTOR PIPE OCATION ON DATE 05/17/20	DUCTOR HOLE TO 40'. E. CMT W/28 SX READY	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY May 18, 2012
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMB 720 929-6029	ER TITLE Regulatory Analyst I	
SIGNATURE N/A		DATE 5/18/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM							
Operator:	KERR McGEE OIL & C	SAS ONSHORE LP	Operator Account Number:	N 2995			
Address:	P.O. Box 173779			-1.3			
	city DENVER						
	state CO	_{zip} 80217	Phone Number:	(720) 929-6029			

			_
W	/e	П	1

API Number	Well	Name	QQ Sec Twp		Rng County		
4304752051	MAVERIO	CK 921-27D-HZ	NWNW	27	98	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	s	pud Da	te		y Assignment fective Date
A	99999	18542	5	/17/201	2	5121	12012

Comments: MIRU BUCKET RIG.

SPUD WELL LOCATION ON 5/17/2012 AT 9:00 HRS.

CONFIDENTIAL

Well 2

API Number	Well	Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
omments:				······································	·		

Well 3

API Number	Well I	Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

RECEIVED

CARA MAHLER
Name (Please Print)

Signature

REGULATORY ANALYST

5/18/2012

Title

Date

(5/2000)

MAY 2 1 2012

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURGE DIVISION OF OIL, GAS, AND MIR		5.LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 1194A
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MAVERICK 921-27D-HZ
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047520510000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0384 FNL 0252 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNW Section:	ridian: S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
5/27/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU AIR RIG ON 5 SURFACE CASING	COMPLETED OPERATIONS. Clearly show 5/24/2012. DRILLED SURFACE AND CEMENTED. WELL IS WANT JOB WILL BE INCLUDED WREPORT.	CE HOLE TO 2530'. RAN AITING ON ROTARY RIG.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY May 29, 2012
NAME (PLEASE PRINT) Cara Mahler	PHONE NUME 720 929-6029	BER TITLE Regulatory Analyst I	
SIGNATURE	. 20 020 0020	DATE	
N/A		5/29/2012	

RECEIVED: May. 29, 2012

SUBMIT AS EMAIL

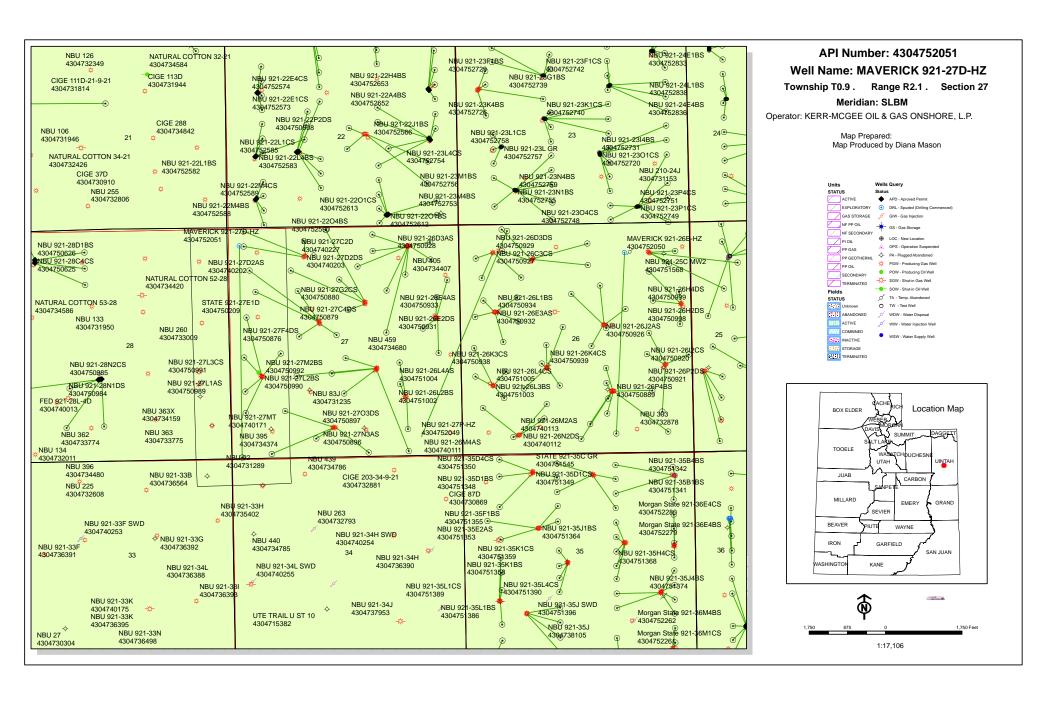
Print Form

CONFIDENTIAL

BLM - Vernal Field Office - Notification Form

Ope	rator <u>KERR-McGEE OIL & GA</u>	<u>\S</u>	CKET RIG
Subr	nitted By <u>J. Scharnowske</u>	Phone Number 720	0.929.6304
Well	Name/Number MAVERICK 9	921-27D-HZ	
	Qtr <u>nwnw</u> Section 27		Range 21E
	e Serial Number <u>UT ST UO 1</u>		
	Number <u>4304752051</u>		
	<u>d Notice</u> – Spud is the initial	spudding of the we	ell, not drilling
out l	pelow a casing string.		
	Data /Time a 05/47/0040	07.00.U70. ANA	
	Date/Time <u>05/17/2012</u>	07:00 HRS AM	PM []
	ng – Please report time casi	ing run starts, not o	ementing
time	S		
$ \mathbf{V} $	Surface Casing		RECEIVED
	Intermediate Casing		
Ш	Production Casing		MAY 1 6 2012
	Liner		DIV. OF OIL, GAS & MININ
	Other		
	Date/Time <u>05/23/2012</u>	08:00 HRS AM	РМ
	- -		
BOP			
	Initial BOPE test at surface		
H	BOPE test at intermediate	casing point	
H	30 day BOPE test	,	
	Other		
	Date/Time	АМ 🗌	PM 🗍
Rem	arks estimated date and time. Plea	ASE CONTACT KENNY GATHINGS	- AT
435.82	88.0986 OR LOVEL YOUNG AT 435.781.70	51	

	FORM 9					
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 1194A					
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME:			
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MAVERICK 921-27D-HZ					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047520510000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATIERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0384 FNL 0252 FWL		COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNW Section:	STATE: UTAH					
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
7	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	✓ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
5/31/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT	✓ DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION			
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
☐ DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show	all pertinent details including dates.	denths, volumes, etc.			
The operator would like to move the bottom hole location of this well to allow for a longer lateral. Attached are the updated survey plat, drilling survey, and 10 point drilling plan. Please note that the survey plat reflects the 4/26/2012 approved sundry for constructing one 75' x 75' pit to store cuttings during drilling operations, and one 250' x 110' pit for completion operations. Outside the request to lengthen the lateral and move the bottom hole location, there will be no additional disturbance from the original approval. Thank you. Approved by the Utah Division of Oil, Gas and Mining Date: June 18, 2012 By: Date: By: By: By: By: By: By: By: By: By: By						
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUME 720 929-6304	BER TITLE Regulartory Analyst				
SIGNATURE N/A		DATE 5/31/2012				



Sundry Number: 26263 API Well Number: 43047520510000 T9S, R21E, S.L.B.&M. Found 2006 Found 2006 Aluminum Cap in Aluminum Cap in N89°46.5"W - 39.942 (G.L.O.) N89°52.1"W - 40.461 (G.L.O.) Pile of Stones, Pile of Stones N89°43'14"W - 2636.24' (Meas.) N89°49'27"W - 2670.41' (Meas.) near E/W Fence Under E/W Fence. Found 2006 Aluminum Cap with Stone Under Well Surface E/W Fence. Position N00°03'25"W - 2644.00' (Meas.) (Basis of Bearings) **WELL LOCATION:** 2521 **MAVERICK 921-27D-HZ** N00°16.1"W - 40.074 (G.L.O.) ELEV. UNGRADED GROUND = 4935.71 N00°12'54"W N00°01"W (G.L.O.) Found 2006 Found Uintah Aluminum Cap, County Aluminum Pile of Stones. Cap in Pile of Stones. N00°23'21"W - 2663.81' (Meas. N00°08'23"W - 2641.52' (Meas. MAVERICK 921-27D-HZ (Surface Position) N00°26.6"W - 40.361 (G.L.O.) NAD 83 LATITUDE = 40.013283° (40° 00' 47.818") LONGITUDE = 109.546451° (109° 32' 47.223") NAD 27 LATITUDE = 40.013318° (40° 00' 47.945") LONGITUDE = 109.545762° (109° 32' 44.744") MAVERICK 921-27D-HZ (Bottom Hole) NAD 83 LATITUDE = 39.999908° (39° 59' 59.668") LONGITUDE = 109.546439° (109° 32' 47.180") NAD 27 LATITUDE = 39.999943° (39° 59' 59.794") LONGITUDE = 109.545751° (109° 32' 44.702") Bottom of Hole Found Uintah County Found Uintah **−**50' Aluminum Cap in Pile of County Aluminum Stones. Found 2006 Cap in Pile of Aluminum Cap S89°59'25"W - 2642.04' (Meas.) S89°57'41"W - 2645.61' (Meas.) Stones with a Set Stone. WEST - 80.00 (G.L.O.) 000 **NOTES:** = Section Corners Located 1. Well footages are measured at right angles to the SCALE Section Lines. 2. G.L.O. distances are shown in feet or chains. SURVEYOR'S CERTIFICATE 1 chain = 66 feet. 3. The Bottom of hole bears \$00°00'52"W 4873.61" THIS IS TO CERTIFY THAT THE ABOVE PROPERTY WAS PREPARED from the Surface Position. FROM FIELD NOTES OF ACTUAL SURVEYS MARDE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE 4. Bearings are based on Global Positioning Satellite AND CORRECT TO THE BEST OF AN KNOWLEDGE AND BELIEF. observations. 5. Basis of elevation is Tri-Sta "Two Water" located in the NW $\frac{1}{4}$ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'. OFESSION ALL AND REGISTRATION KMP 6028691 Kerr-McGee Oil & Gas Onshore, LP STATE OF UTAPPARTED 1099 18th Street - Denver, Colorado 80202 (435) 789-1365 **WELL PAD - MAVERICK 921-27D** TIMBERLINE ENGINEERING & LAND SURVEYING, INC. **MAVERICK 921-27D-HZ** 209 NORTH 300 WEST - VERNAL, UTAH 84078 **WELL PLAT** DATE SURVEYED: CONSULTING, LLC SHEET NO: SURVEYED BY: M.S.B. 09-09-11 50' FSL, 225' FWL (Bottom Hole) 2155 North Main Street DATE DRAWN: DRAWN BY: M.W.W. Sheridan WY 82801 SW $\frac{1}{4}$ SW $\frac{1}{4}$ OF SECTION 27, T9S, R21E, Phone 307-674-0609 Date Last Revised:

Fax 307-674-0182

S.L.B.&M., UINTAH COUNTY, UTAH.

5-16-12 T.I.R.

1 OF 13

SCALE: 1" = 1000"

		SURFACE POSITION					BOTTOM HOLE				
WELL NAME	N. LATITUDE	AD83 LONGITUDE	LATITUDE	D27 LONGITUDE	FOOTAGES	NAI LATITUDE	D83 LONGITUDE	NAI LATITUDE	D27 LONGITUDE	FOOTAGES	
MAVERICK	40°00'47.818	8" 109°32'47.223'	40°00'47.945"	109°32'44.744"	384' FNL	39°59'59.668"	109°32'47.180'	39°59'59.794"	109°32'44.702'	50' FSL	
921-27D-HZ	40.013283° VE COORDIN	109.546451°	40.013318°	109.545762°	252' FWL	39.999908°	109.546439°	39.999943°	109.545751°	225' FWL	
	Position to Bo										
WELL NAME	NORTH	EAST									
MAVERICK 921-27D-HZ	- 4,873.6	-1.2									
				.61. 	000 OF 1 R21I GLO OBS	THE NW 1/4 C E, S.L.B.&M. W BAL POSITIO	GS IS THE WES OF SECTION 27 HICH IS TAKE NING SATELLI O BEAR NOO*	7, T9S, EN FROM TE			
1099 1	8th Street - D	& Gas Ons	80202			i -	100		ALE	100	
WELL PA	ບ - MAV	ERICK 921-	-27 U		609		IMBERL ENGINEERIN		SURVEYING	35) 789-1365 TINIC	
WELL P	PAD INT	ERFERENC	E PLAT			'			RNAL, UTAH 84		
		RICK 921-27I			ULTING, LL	U 19-0	E SURVEYED: 9-11	SURVEYED E	3Y: M.S.B.	SHEET NO:	
		TION 27, T9			orth Main Stre an WY 8280	DAT	e drawn:	DRAWN BY:	: M.W.W.	7	
S.L.B.&A	۸., UINTA	H COUNTY	, UTAH.	Phone	307-674-060	9		Date Last Re		_	
				Fax 3	307-674-0182		SCALE: 1" = 100'	5-16-12 T.J.F		2 OF 13	

Sundry Number: 26263 API Well Number: 43047520510000 PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION. **EXISTING FENCE** TRIBAL LANDS, SEC. 22, T9S, R21E STATE LANDS, SEC. 27, T9S, R21E 280¹ 220¹ F8.1 F13.8 F6.2 STATE LANDS, STATE LANÓS, SEC. 27, T9S, BLM LANDS, SEC. 28, T9S, I PROPOSED 8" GAS LINE , R21E , R21E TOPSOIL STOCKPILE **PROPOSED PRIMARY** ACCESS ROAD **CONSTRUCT DIVERSION DITCH (AS NEEDED)** 9 C4.0 B ŵ C4.5 C2.0 C2.1 MAVERICK 921-27D-HZ PROPOSED 75' SECONDARY 4940 20 ACCESS ROAD 90' MUD GENERATOR COLLECTION PUMP BOILER RECLAIMED PIT EXISTING WELL: 50' 110' BA) EXISTING WELL PAD 100 C11.9 C10.5 20' C12.0 220 EXISTING SEPARATOR 뭗 **EXCESS CUT** STOCKPILE PPL TOPSOIL PROPOSED **STOCKPILE** 4" GAS PIPELINE **RE-ROUTE** 4940 EXISTING SURFACE 4" GAS PIPELINE NAMED CLASS D COUNTY ROAD WELL PAD - MAVERICK 921-27D DESIGN SUMMARY WELL PAD LEGEND EXISTING WELL LOCATION
PROPOSED WELL LOCATION
PROPOSED BOTTOM HOLE LOCATION EXISTING GRADE @ CENTER OF WELL PAD = 4935.71 FINISHED GRADE ELEVATION = 4933.61 WELL PAD QUANTITIES TOTAL CUT FOR WELL PAD = 21,950 C.Y.
TOTAL FILL FOR WELL PAD = 20,866 C.Y.
TOPSOIL @ 6" DEPTH = 5,313 C.Y.
EXCESS MATERIAL = 1,084 C.Y. CUT SLOPES = 1.5:1 FILL SLOPES = 1.5:1 EXISTING CONTOURS (2' INTERVAL) PROPOSED CONTOURS (2' INTERVAL) PROPOSED PIPELINE EXISTING PIPELINE TOTAL WELL PAD AREA = 6.59 ACRES TOTAL DISTURBANCE AREA = 7.49 ACRES SHRINKAGE FACTOR = 1.10 CUTTINGS COLLECTION AREA QUANTITIES SWELL FACTOR = 1.00 TOTAL CUT FOR CUTTINGS Kerr-McGee Oil & Gas Onshore, LP **COLLECTION AREA** 1099 18th Street - Denver, Colorado 80202 +/- 745 C.Y. **609** WELL PAD - MAVERICK 921-27D HORIZONTAL WELL PAD - LOCATION LAYOUT 21 CONTOURS MAVERICK 921-27D-HZ CONSULTING, LLC LOCATED IN SECTION 27, T9S, R21E, 2155 North Main Street Sheridan, WY 82801 Phone 307-674-0609 Fax 307-674-0182 TIMBERLINE 9/16/11 SHEET NO: S.L.B.&M., UINTAH COUNTY, UTAH ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078 DJD 5/18/12 3 3 OF 13 REVISED

Sundry Number: 26263 API Well Number: 43047520510000 4 OF 13 **■** 1" = 100' 1'' = 20'SHEET NO: 100 -20 T 9/16/11 20 10 4940 4920 7+00 HORIZONTAL Date: 4940 4920 VERTICAL 1"=100 6+00 FINISHED PAD ELEV = 4933.6 REVISED: Scale: 6+00 (435) 789-1365 5+00 ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078 250 FINISHED PAD ELEV = 4933.6' 5+00 4+00 242 EXISTING GRADE **CROSS SECTION A-A' CROSS SECTION B-B'** MAVERICK 921-27D-HZ 4+00 TIMBERLINE 3+00 EXISTING GRADE MAVERICK 921-27D-HZ 3+00 100 2155 North Main Street Sheridan, WY 82801 Phone 307-674-0609 Fax 307-674-0182 2+00 CONSULTING, LLC 350 COLLECTION AREA 2+00 100 1+00 Kerr-McGee Oil & Gas Onshore, LP 1+00 1.5:1 MAVERICK 921-27D-HZ LOCATED IN SECTION 27, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH WELL PAD - MAVERICK 921-27D 1099 18th Street - Denver, Colorado 80202 WELL PAD - CROSS SECTIONS 0+004940 4920 1:5.1 0+00 4920 4940

26263 API Well Number: 43047520510000 Sundry Number: 5 OF 13 SHEET NO: 100 9/16/11 50 Date: HORIZONTAL 1"=100 8" GAS LINE **PROPOSED PROPOSED WELL PAD** REVISED: Scale: (435) 789-1365 ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST. VERNAL, UTAH 84078 PROPOSED WELL LOCATION **EXISTING WELL LOCATION WELL PAD LEGEND ACCESS ROAD** PROPOSED PIPELINE **PROPOSED** PRIMARY **EXISTING PIPELINE** ●MAVERICK 921-27D.HL TIMBERLINE EPL P **ACCESS ROAD** SECONDARY **PROPOSED METER HOUSE** SEPARATOR/ $(30^{1} \times 30^{1})$ 35 **COLLECTION AREA** ONLY, ACTUAL LOCATIONS TO BE DETERMINED PAD AREA ARE FOR VISUALIZATION PURPOSES PLEASE NOTE: LOCATIONS OF FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE 2155 North Main Street Sheridan, WY 82801 Phone 307-674-0609 Fax 307-674-0182 0 0 0 **CUTTINGS** CONSULTING, LLC CONTAINMENT **UNNAMED CLASS D COUNTY ROAD** PPL METAL **DURING CONSTRUCTION** (TYPICAL) **TANKS** Kerr-McGee Oil & Gas Onshore, LP PPL LOCATED IN SECTION 27, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH WELL PAD - FACILITIES DIAGRAM WELL PAD - MAVERICK 921-27D 1099 18th Street - Denver, Colorado 80202 MAVERICK 921-27D-HZ PPL **EXISTING SURFACE** 4" GAS PIPELINE 뭗 4" GAS PIPELINE PROPOSED. **RE-ROUTE**

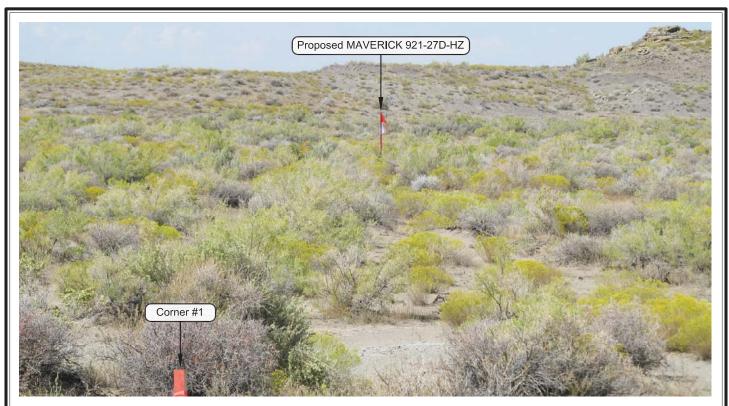


PHOTO VIEW: FROM CORNER #1 TO LOCATION STAKE

CAMERA ANGLE: WESTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: NORTHWESTERLY

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

WELL PAD - MAVERICK 921-27D

LOCATION PHOTOS MAVERICK 921-27D-HZ LOCATED IN SECTION 27, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

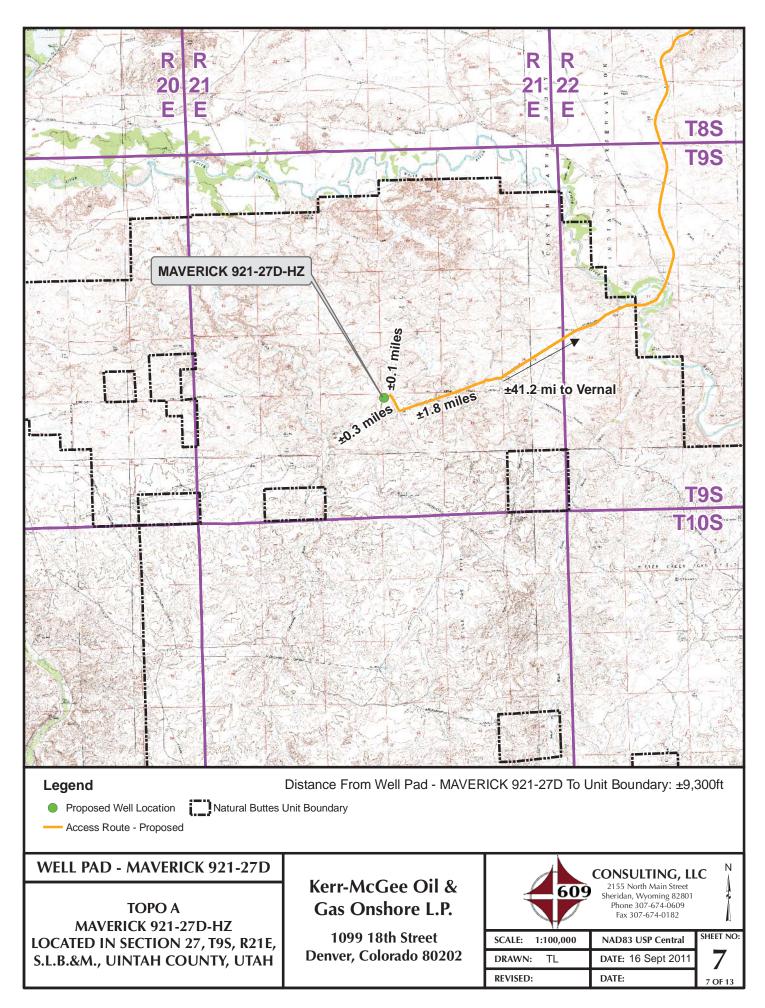
TIMBERLINE

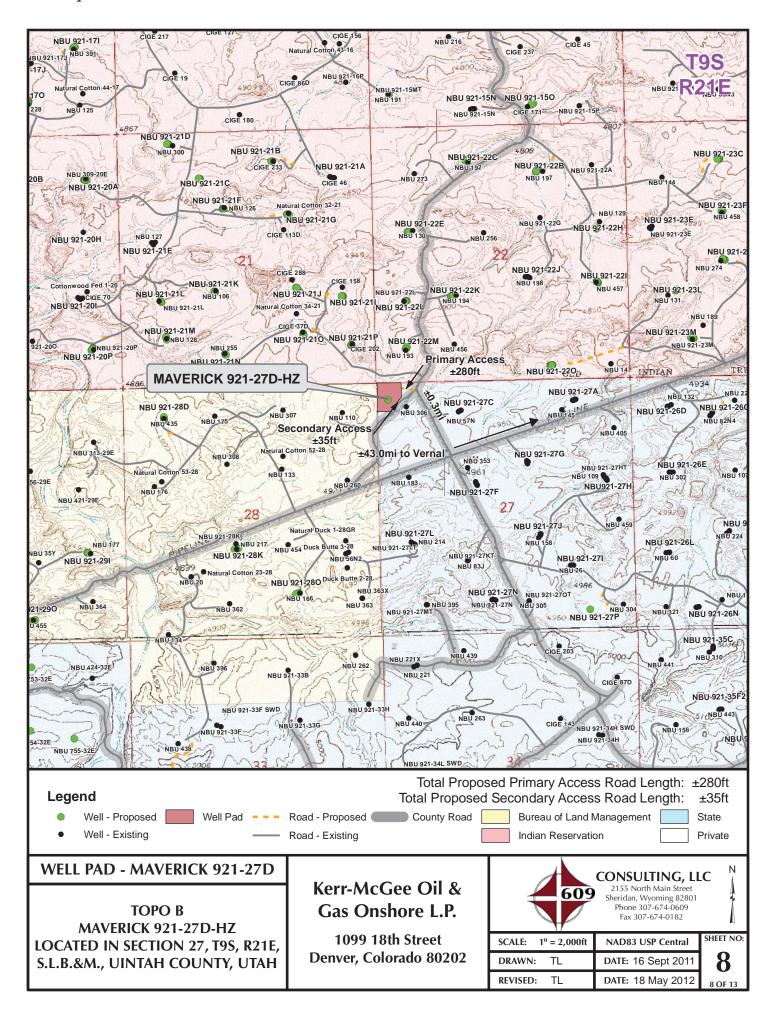
(435) 789-1365

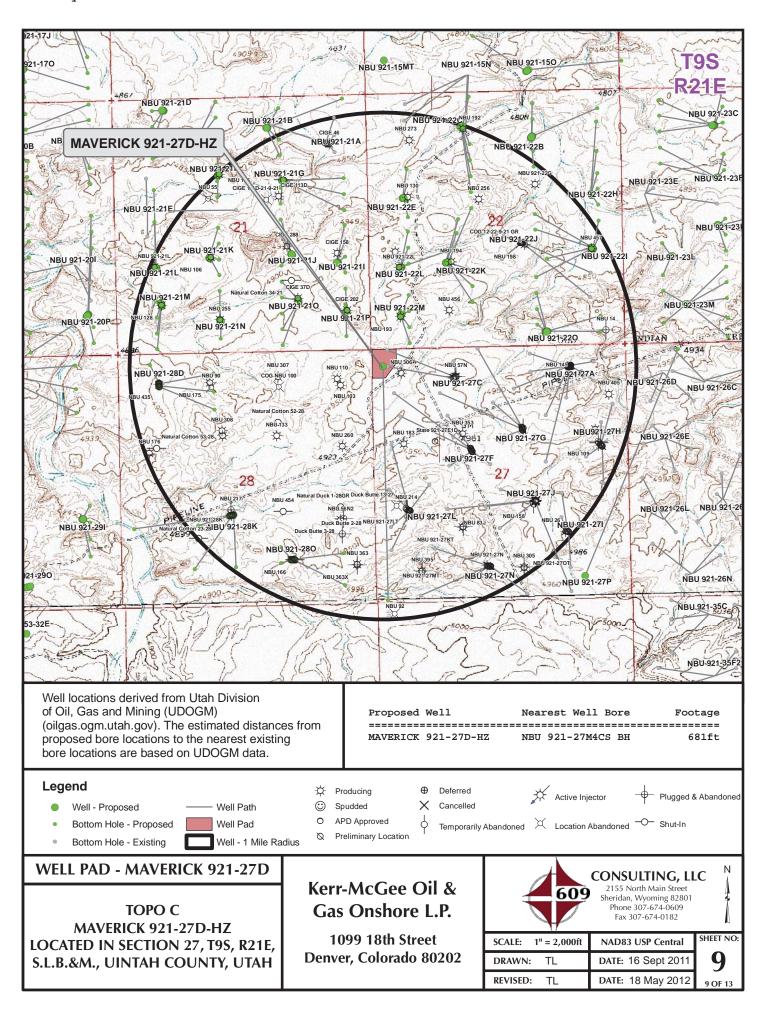
6 OF 13

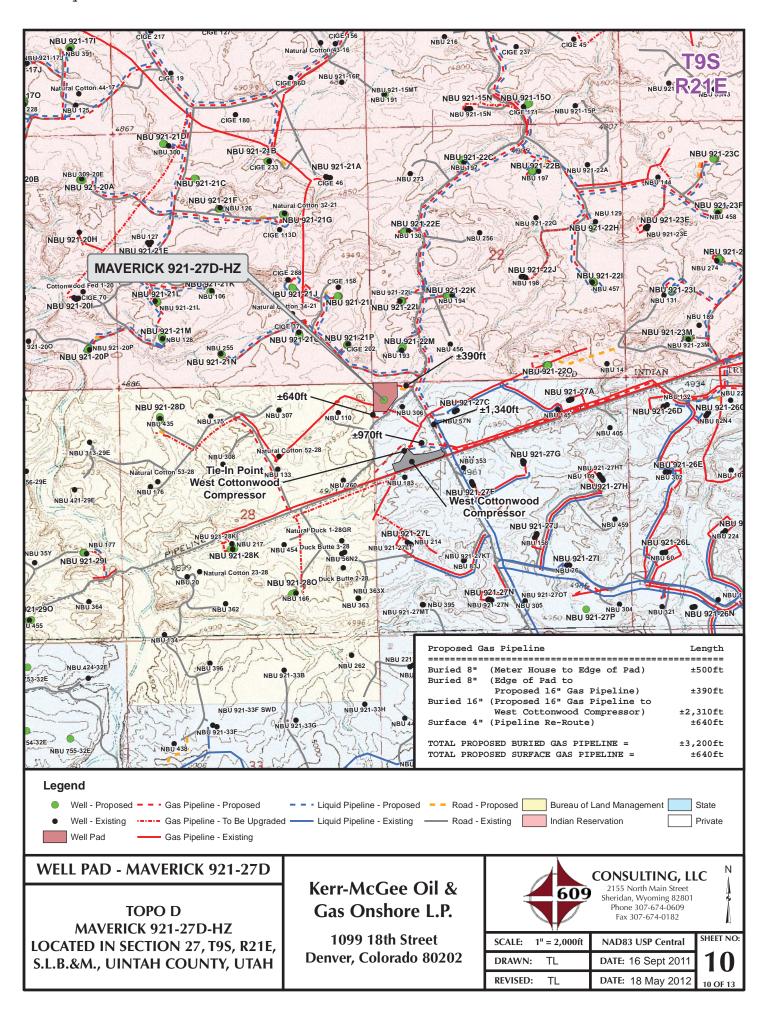
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

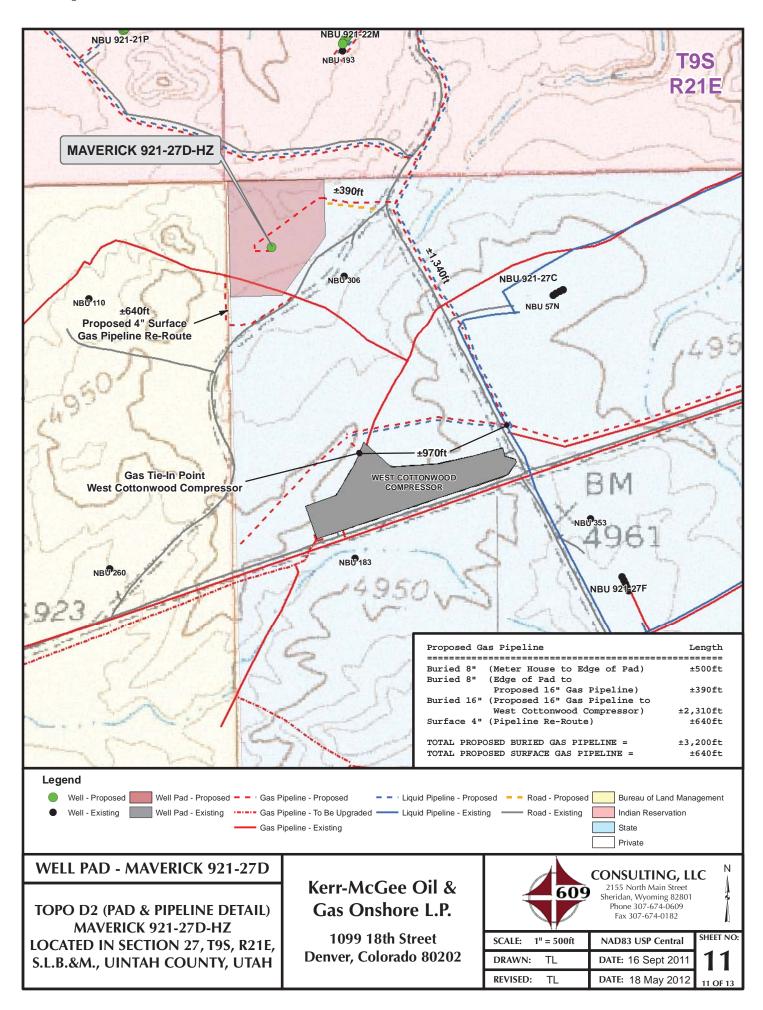
DATE PHOTOS TAKEN: 09-09-11	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
DATE DRAWN: 09-13-11	DRAWN BY: M.W.W.	6
Date Last Revised:		6 OF 13

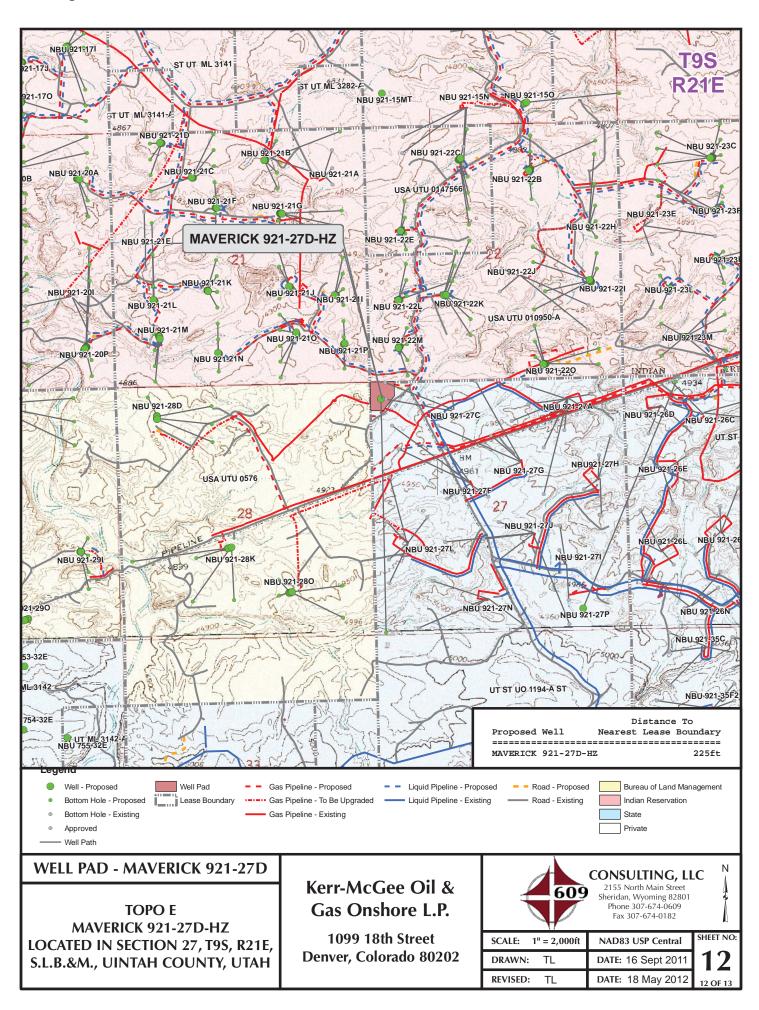












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – MAVERICK 921-27D WELL – MAVERICK 921-27D-HZ Section 27, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 17.7 miles to a Class D County Road to the southwest. Exit right and proceed in a southwesterly direction along the Class D County Road approximately 1.8 miles to a second Class D County Road to the north. Exit right and proceed in a northerly direction along the second Class D County Road approximately 0.3 miles to the proposed primary access road. Follow road flags in a northwesterly direction approximately 280 feet the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 43.4 miles in a southerly direction.

SHEET 13 OF 13

Sundry Number: 26263 A
Scientific Drilling

Sundry Number: 26263 API Well Number: 43047520510000

Project: UTAH - UTM (feet), NAD27, Zone 12N

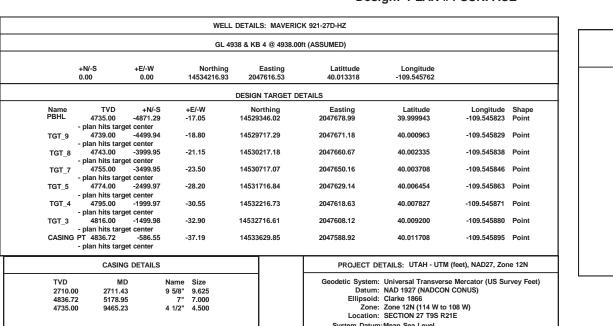
Site: MAVERICK 921-27D-HZ Well: MAVERICK 921-27D-HZ

Wellbore: OH

Design: PLAN #4 SURFACE

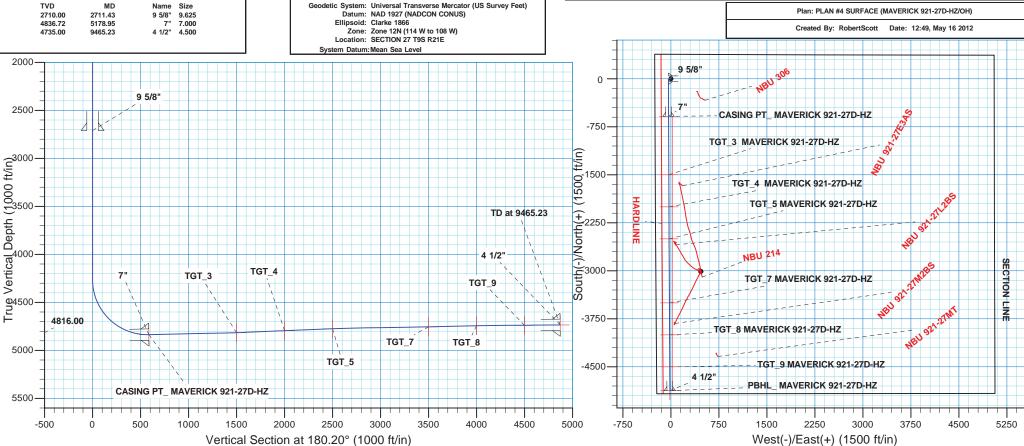






Azi TVD +N/-S +E/-W Dleg TFace Target 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 300.00 0.00 0.00 300.00 0.00 0.00 0.00 0.00 0.00 550.00 5.00 270.00 549.68 2.00 270.00 0.04 0.00 -10.90 757.64 758.75 5.00 270.00 -29.10 0.10 0.00 0.00 0.00 1008.75 0.00 270.00 1007.32 0.00 -40.00 2 00 180 00 0.14 4265 35 0.00 270.00 4263.92 0.00 -40.00 0.00 270.00 0.14 5178.95 91.36 179.73 4836.72 -586.55 -37.19 10.00 179.73 586.68 CASING PT_ MAVERICK 921-27D-HZ 91.30 179.73 4836.65 -589.58 -37.18 589.71 5181.98 0.00 1500.09 TGT_3 MAVERICK 921-27D-HZ 6092.63 91.30 179.73 4816.00 -1499.98 -32.90 0.00 -1558.68 -32.62 -0.01 1558.78 6151.36 92.47 179.73 4814.07 2.00 0.00 2000.07 TGT_4 MAVERICK 921-27D-HZ 6593.07 92.47 179.73 4795.00 -1999.97 -30.55 0.00 6596.53 92.40 179.73 4794.85 -2003 43 -30.532.00 179.99 2003.52 7093.51 92.40 179.73 4774.00 -2499.97 -28.20 0.00 0.00 2500.05 TGT_5 MAVERICK 921-27D-HZ 7161.64 91.04 179.73 4771.95 -2568.07 -27.88 2.00 -180.00 2568.15 8093.69 179.73 4755.00 -23.50 0.00 3500.01 TGT_7 MAVERICK 921-27D-HZ 91.38 179.73 4754.64 -3516.87 -23.42 0.00 3516.93 TGT_8 MAVERICK 921-27D-HZ 8593.84 91.38 179.73 4743.00 -3999.95 -21.15 0.00 0.00 3999.99 2.00 -180.00 4048.45 8642.29 90.41 179.73 4742.24 -4048.40 -20.92 0.00 4499.98 TGT_9 MAVERICK 921-27D-HZ 9093.85 90.41 179.73 4739.00 -4499.94 -18.80 0.00 9104 29 90.62 179.73 4738.91 -4510.37 -18.75 2.00 -0.20 4510.41 9465.23 90.62 179.73 4735.00 -4871.29 -17.05 0.00 0.00 4871.32 PBHL_ MAVERICK 921-27D-HZ

SECTION DETAILS



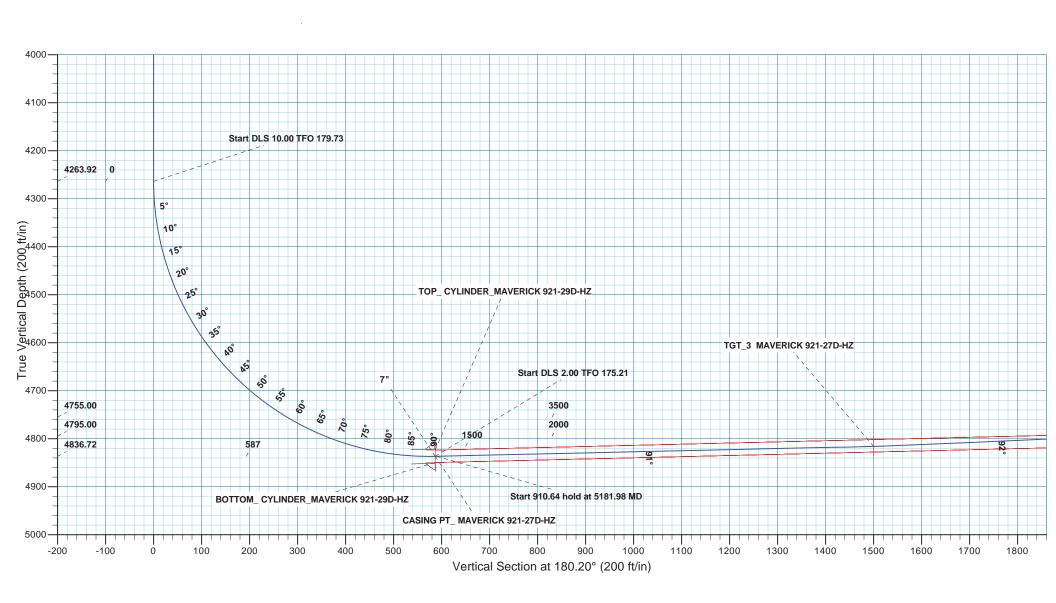
Sundry Number: 26263 API Well Number joje 1.0 (1757-1757), NAD27, Zone 12N Site: MAVERICK 921-27D-HZ

Scientific Drilling

Site: MAVERICK 921-27D-HZ Well: MAVERICK 921-27D-HZ

Wellbore: OH

Design: PLAN #4 SURFACE



Plan: PLAN #4 SURFACE (MAVERICK 921-27D-HZ/OH)

Created By: RobertScott Date: 12:57, May 16 2012



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MAVERICK 921-27D-HZ MAVERICK 921-27D-HZ

OH

Plan: PLAN #4 SURFACE

Standard Planning Report

16 May, 2012





SDI Planning Report



Database: EDM5000-RobertS-Local Company: US ROCKIES REGION P

US ROCKIES REGION PLANNING
UTAH - UTM (feet), NAD27, Zone 12N

 Project:
 UTAH - UTM (feet), NAD27

 Site:
 MAVERICK 921-27D-HZ

 Well:
 MAVERICK 921-27D-HZ

Wellbore: OH

Design: PLAN #4 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MAVERICK 921-27D-HZ

GL 4938 & KB 4 @ 4938.00ft (ASSUMED) GL 4938 & KB 4 @ 4938.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: Zone 12N (114 W to 108 W)

System Datum: Mean

Mean Sea Level

Site MAVERICK 921-27D-HZ, SECTION 27 T9S R21E

Northing: 14,534,216.93 usft Site Position: Latitude: 40.013318 From: Lat/Long Easting: 2,047,616.53 usft Longitude: -109.545763 **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 0.94 13.200 in

Well MAVERICK 921-27D-HZ, 384 FNL 252 FWL

 Well Position
 +N/-S
 0.00 ft
 Northing:
 14,534,216.93 usft
 Latitude:
 40.013318

 +E/-W
 0.00 ft
 Easting:
 2,047,616.53 usft
 Longitude:
 -109.545763

Position Uncertainty0.00 ftWellhead Elevation:Ground Level:4,934.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination **Dip Angle** Field Strength (nT) (°) (°) IGRF2010 2011/09/21 11.06 65.86 52.304

PLAN #4 SURFACE Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 180.20

2012/05/16 12:45:21PM Page 2 COMPASS 5000.1 Build 40



SDI Planning Report



EDM5000-RobertS-Local Database: Company:

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

MAVERICK 921-27D-HZ Site: Well: MAVERICK 921-27D-HZ

Wellbore: ОН

Project:

Design: PLAN #4 SURFACE Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MAVERICK 921-27D-HZ

GL 4938 & KB 4 @ 4938.00ft (ASSUMED) GL 4938 & KB 4 @ 4938.00ft (ASSUMED)

Minimum Curvature

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
550.00	5.00	270.00	549.68	0.00	-10.90	2.00	2.00	0.00	270.00	
758.75	5.00	270.00	757.64	0.00	-29.10	0.00	0.00	0.00	0.00	
1,008.75	0.00	270.00	1,007.32	0.00	-40.00	2.00	-2.00	0.00	180.00	
4,265.35	0.00	270.00	4,263.92	0.00	-40.00	0.00	0.00	0.00	270.00	
5,178.95	91.36	179.73	4,836.72	-586.55	-37.19	10.00	10.00	-9.88	179.73	CASING PT_ MAVER
5,181.98	91.30	179.73	4,836.65	-589.58	-37.18	2.00	-1.99	0.17	175.21	
6,092.63	91.30	179.73	4,816.00	-1,499.98	-32.90	0.00	0.00	0.00	0.00	TGT_3 MAVERICK 9
6,151.36	92.47	179.73	4,814.07	-1,558.68	-32.62	2.00	2.00	0.00	-0.01	
6,593.07	92.47	179.73	4,795.00	-1,999.97	-30.55	0.00	0.00	0.00	0.00	TGT_4 MAVERICK 9
6,596.53	92.40	179.73	4,794.85	-2,003.43	-30.53	2.00	-2.00	0.00	179.99	
7,093.51	92.40	179.73	4,774.00	-2,499.97	-28.20	0.00	0.00	0.00	0.00	TGT_5 MAVERICK 9:
7,161.64	91.04	179.73	4,771.95	-2,568.07	-27.88	2.00	-2.00	0.00	-180.00	
8,093.69	91.04	179.73	4,755.00	-3,499.95	-23.50	0.00	0.00	0.00	0.00	TGT_7 MAVERICK 9:
8,110.62	91.38	179.73	4,754.64	-3,516.87	-23.42	2.00	2.00	0.00	0.00	
8,593.84	91.38	179.73	4,743.00	-3,999.95	-21.15	0.00	0.00	0.00	0.00	TGT_8 MAVERICK 9:
8,642.29	90.41	179.73	4,742.24	-4,048.40	-20.92	2.00	-2.00	0.00	-180.00	
9,093.85	90.41	179.73	4,739.00	-4,499.94	-18.80	0.00	0.00	0.00	0.00	TGT_9 MAVERICK 9:
9,104.29	90.62	179.73	4,738.91	-4,510.37	-18.75	2.00	2.00	-0.01	-0.20	
9,465.23	90.62	179.73	4,735.00	-4,871.29	-17.05	0.00	0.00	0.00	0.00	PBHL_ MAVERICK 9:



SDI Planning Report



Database: Company:

EDM5000-RobertS-Local

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

MAVERICK 921-27D-HZ Site: Well: MAVERICK 921-27D-HZ

Wellbore: ОН

Project:

Design: PLAN #4 SURFACE Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MAVERICK 921-27D-HZ

GL 4938 & KB 4 @ 4938.00ft (ASSUMED) GL 4938 & KB 4 @ 4938.00ft (ASSUMED)

Minimum Curvature

·9···									
nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00		0.00				0.00	
			200.00		0.00	0.00	0.00		0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build	2.00								
400.00	2.00	270.00	399.98	0.00	-1.75	0.01	2.00	2.00	0.00
500.00	4.00	270.00	499.84	0.00	-6.98	0.02	2.00	2.00	0.00
550.00	5.00	270.00	549.68	0.00	-10.90	0.04	2.00	2.00	0.00
Start 208 7	5 hold at 550.00 N	/ID							
600.00	5.00	270.00	599.49	0.00	-15.26	0.05	0.00	0.00	0.00
700.00	5.00	270.00	699.11	0.00	-23.97	0.08	0.00	0.00	0.00
758.75	5.00	270.00	757.64	0.00	-29.10	0.10	0.00	0.00	0.00
Start Drop	-2.00								
•									
800.00	4.18	270.00	798.76	0.00	-32.39	0.11	2.00	-2.00	0.00
900.00	2.18	270.00	898.60	0.00	-37.93	0.13	2.00	-2.00	0.00
1.000.00	0.18	270.00	998.57	0.00	-39.98	0.14	2.00	-2.00	0.00
1,008.75	0.00	270.00	1,007.32	0.00	-40.00	0.14	2.00	-2.00	0.00
			1,007.32	0.00	- 70.00	0.14	2.00	-2.00	0.00
Start 3256.0	60 hold at 1008.7	5 MD							
1,100.00	0.00	270.00	1,098.57	0.00	-40.00	0.14	0.00	0.00	0.00
4 000 00	0.00	070.00	4 400 57	2.00	40.00	0.44	0.00	0.00	0.00
1,200.00	0.00	270.00	1,198.57	0.00	-40.00	0.14	0.00	0.00	0.00
1,300.00	0.00	270.00	1,298.57	0.00	-40.00	0.14	0.00	0.00	0.00
1,400.00	0.00	270.00	1,398.57	0.00	-40.00	0.14	0.00	0.00	0.00
1,500.00	0.00	270.00	1,498.57	0.00	-40.00	0.14	0.00	0.00	0.00
1,600.00	0.00	270.00	1,598.57	0.00	-40.00	0.14	0.00	0.00	0.00
1,000.00	0.00	2.0.00	.,000.01	0.00	.0.00	• • • • • • • • • • • • • • • • • • • •	0.00	0.00	0.00
1,700.00	0.00	270.00	1,698.57	0.00	-40.00	0.14	0.00	0.00	0.00
1,800.00	0.00	270.00	1,798.57	0.00	-40.00	0.14	0.00	0.00	0.00
1,900.00	0.00	270.00	1,898.57	0.00	-40.00	0.14	0.00	0.00	0.00
2,000.00	0.00	270.00	1,998.57	0.00	-40.00	0.14	0.00	0.00	0.00
2,100.00	0.00	270.00	2,098.57	0.00	-40.00	0.14	0.00	0.00	0.00
2,200.00	0.00	270.00	2,198.57	0.00	-40.00	0.14	0.00	0.00	0.00
2,300.00	0.00	270.00	2,298.57	0.00	-40.00	0.14	0.00	0.00	0.00
2,400.00	0.00	270.00	2,398.57	0.00	-40.00	0.14	0.00	0.00	0.00
2,500.00	0.00	270.00	2,498.57	0.00	-40.00	0.14	0.00	0.00	0.00
2,600.00	0.00	270.00	2,598.57	0.00	-40.00	0.14	0.00	0.00	0.00
2,700.00	0.00	270.00	2,698.57	0.00	-40.00	0.14	0.00	0.00	0.00
,			,						
2,711.43	0.00	270.00	2,710.00	0.00	-40.00	0.14	0.00	0.00	0.00
9 5/8"									
2,800.00	0.00	270.00	2,798.57	0.00	-40.00	0.14	0.00	0.00	0.00
2,900.00	0.00	270.00	2,898.57	0.00	-40.00	0.14	0.00	0.00	0.00
3,000.00	0.00	270.00	2,998.57	0.00	-40.00	0.14	0.00	0.00	0.00
0,000.00	0.00	210.00	2,000.01	0.00	+0.00	0.17	0.00	0.00	0.00
3,100.00	0.00	270.00	3,098.57	0.00	-40.00	0.14	0.00	0.00	0.00
3,200.00	0.00	270.00	3,198.57	0.00	-40.00	0.14	0.00	0.00	0.00
3,300.00	0.00	270.00	3,298.57	0.00	-40.00	0.14	0.00	0.00	0.00
3,400.00	0.00	270.00	3,398.57	0.00	-40.00	0.14	0.00	0.00	0.00
3,500.00	0.00	270.00	3,498.57	0.00	-40.00	0.14	0.00	0.00	0.00
3.600.00	0.00	270.00	3,598.57	0.00	-40.00	0.14	0.00	0.00	0.00
3,700.00			,						
-,	0.00	270.00	3,698.57	0.00	-40.00	0.14	0.00	0.00	0.00
3,800.00	0.00	270.00	3,798.57	0.00	-40.00	0.14	0.00	0.00	0.00
3,900.00	0.00	270.00	3,898.57	0.00	-40.00	0.14	0.00	0.00	0.00
4,000.00	0.00	270.00	3,998.57	0.00	-40.00	0.14	0.00	0.00	0.00
4,100.00	0.00	270.00	4,098.57	0.00	-40.00	0.14	0.00	0.00	0.00
4,200.00	0.00	270.00	4,198.57	0.00	-40.00	0.14	0.00	0.00	0.00
4,265.35	0.00	270.00	4,263.92	0.00	-40.00	0.14	0.00	0.00	0.00



SDI Planning Report



Database: EDM5000-RobertS-Local
Company: US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

Site: MAVERICK 921-27D-HZ
Well: MAVERICK 921-27D-HZ

Wellbore: OH

Project:

Design: PLAN #4 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MAVERICK 921-27D-HZ

GL 4938 & KB 4 @ 4938.00ft (ASSUMED) GL 4938 & KB 4 @ 4938.00ft (ASSUMED)

True

Minimum Curvature

:	PLAN #4 SUR	FACE							
ned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Start DLS	10.00 TFO 179.73								
4,300.00	3.46	179.73	4,298.55	-1.05	-39.99	1.19	10.00	10.00	-260.53
4,400.00	13.46	179.73	4,397.34	-15.75	-39.92	15.89	10.00	10.00	0.00
4 500 00	22.46	170.72	4 402 07	47.20	20.77	47.50	10.00	10.00	0.00
4,500.00		179.73	4,492.07	-47.38	-39.77	47.52	10.00 10.00	10.00	0.00 0.00
4,600.00 4,700.00		179.73 179.73	4,579.87 4,658.07	-94.98 -157.11	-39.54 -39.24	95.12 157.24	10.00	10.00 10.00	0.00
4,800.00		179.73	4,724.29	-231.86	-38.89	232.00	10.00	10.00	0.00
4,900.00		179.73	4,776.53	-316.99	-38.48	317.12	10.00	10.00	0.00
4,300.00									
5,000.00		179.73	4,813.19	-409.89	-38.04	410.02	10.00	10.00	0.00
5,100.00		179.73	4,833.16	-507.74	-37.57	507.87	10.00	10.00	0.00
5,178.36	91.30	179.73	4,836.73	-585.96	-37.19	586.09	10.00	10.00	0.00
TOP_CYL	INDER_MAVERICI								
5,178.65	91.33	179.73	4,836.73	-586.25	-37.19	586.37	10.00	10.00	0.00
BOTTOM_	CYLINDER_MAVE	ERICK 921-29D	-HZ						
5,178.95	91.36	179.73	4,836.72	-586.55	-37.19	586.68	10.00	10.00	0.00
Start DLS	2.00 TFO 175.21 -	7" - CASING P	T_ MAVERICK 9	21-27D-HZ					
5,181.98	91.30	179.73	4,836.65	-589.58	-37.18	589.71	2.00	-1.99	0.17
			4,030.03	-309.30	-57.10	309.71	2.00	-1.55	0.17
	64 hold at 5181.98		4 000 04	CO7 FO	27.00	007.70	0.00	0.00	0.00
5,200.00		179.73	4,836.24	-607.59	-37.09	607.72	0.00	0.00	0.00
5,300.00 5.400.00		179.73	4,833.97	-707.57	-36.62	707.69	0.00	0.00	0.00
5,500.00		179.73 179.73	4,831.71 4,829.44	-807.54 -907.51	-36.15 -35.68	807.66 907.63	0.00 0.00	0.00 0.00	0.00 0.00
5,500.00	91.30	179.73	4,029.44	-907.51	-35.00	907.03	0.00	0.00	0.00
5,600.00		179.73	4,827.17	-1,007.49	-35.21	1,007.60	0.00	0.00	0.00
5,700.00		179.73	4,824.90	-1,107.46	-34.74	1,107.57	0.00	0.00	0.00
5,800.00		179.73	4,822.64	-1,207.43	-34.27	1,207.54	0.00	0.00	0.00
5,900.00		179.73	4,820.37	-1,307.41	-33.80	1,307.52	0.00	0.00	0.00
6,000.00	91.30	179.73	4,818.10	-1,407.38	-33.33	1,407.49	0.00	0.00	0.00
6,092.63	91.30	179.73	4,816.00	-1,499.98	-32.90	1,500.09	0.00	0.00	0.00
Start DLS	2.00 TFO -0.01 - TO	GT_3 MAVERIO	CK 921-27D-HZ						
6,100.00	91.45	179.73	4,815.82	-1,507.35	-32.87	1,507.46	2.00	2.00	0.00
6,151.36	92.47	179.73	4,814.07	-1,558.68	-32.62	1,558.78	2.00	2.00	0.00
Start 441.7	'1 hold at 6151.36	MD							
6,200.00	92.47	179.73	4,811.97	-1,607.27	-32.40	1,607.38	0.00	0.00	0.00
6,300.00	92.47	179.73	4,807.65	-1,707.18	-31.93	1,707.28	0.00	0.00	0.00
6,400.00	92.47	179.73	4,803.33	-1,807.09	-31.46	1,807.18	0.00	0.00	0.00
6,500.00		179.73	4,799.02	-1,906.99	-30.99	1,907.10	0.00	0.00	0.00
6.593.07		179.73	4,795.00	-1,999.97	-30.55	2,000.07	0.00	0.00	0.00
-,	2.00 TFO 179.99 -				55.55	_,	0.00	0.00	0.00
6,596.53		179.73	4,794.85	-2,003.43	-30.53	2,003.52	2.00	-2.00	0.00
	8 hold at 6596.53								
6,600.00		179.73	4,794.71	-2,006.90	-30.52	2,006.99	0.00	0.00	0.00
,				,					
6,700.00		179.73	4,790.51	-2,106.81	-30.05	2,106.90	0.00	0.00	0.00
6,800.00		179.73	4,786.32	-2,206.72 2,306.63	-29.58 20.11	2,206.81	0.00	0.00	0.00
6,900.00 7,000.00		179.73 179.73	4,782.12 4,777.92	-2,306.63 -2,406.54	-29.11 -28.64	2,306.72	0.00 0.00	0.00 0.00	0.00 0.00
7,000.00		179.73	4,777.92 4,774.00	-2,406.54 -2,499.97	-28.64 -28.20	2,406.63 2,500.05	0.00	0.00	0.00
	92.40 2.00 TFO -180.00 -				-20.20	2,000.00	0.00	0.00	0.00
Start DLS		131_5 WAVE	NON 321-21 D-H						
7,100.00		179.73	4,773.74	-2,506.45	-28.17	2,506.53	2.00	-2.00	0.00
7,161.64	91.04	179.73	4,771.95	-2,568.07	-27.88	2,568.15	2.00	-2.00	0.00
	5 hold at 7161.64								
7,200.00		179.73	4,771.25	-2,606.42	-27.70	2,606.50	0.00	0.00	0.00
7,300.00		179.73	4,769.43	-2,706.40	-27.23	2,706.48	0.00	0.00	0.00
7,400.00	91.04	179.73	4,767.62	-2,806.38	-26.76	2,806.46	0.00	0.00	0.00



SDI Planning Report



Database: Company: Project: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

Site: MAVERICK 921-27D-HZ
Well: MAVERICK 921-27D-HZ

Wellbore: OH

Design: PLAN #4 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MAVERICK 921-27D-HZ

GL 4938 & KB 4 @ 4938.00ft (ASSUMED) GL 4938 & KB 4 @ 4938.00ft (ASSUMED)

True

Minimum Curvature

8,000.00 91.04 179.73 4,756.70 -3,406.28 -23.94 3,406.34 0.00 0.00 8,093.69 91.04 179.73 4,755.00 -3,499.95 -23.50 3,500.01 0.00 0.00 0.00 Start DLS 2.00 TFO 0.00 - TGT_7 MAVERICK 921-27D-HZ 8,100.00 91.17 179.73 4,754.88 -3,506.26 -23.47 3,506.32 2.00 2.00 2.00 8,110.62 91.38 179.73 4,754.64 -3,516.87 -23.42 3,516.93 2.00 2.00 Start 483.22 hold at 8110.62 MD 8,200.00 91.38 179.73 4,754.64 -3,516.87 -23.42 3,516.93 2.00 0.00 0.00 8,300.00 91.38 179.73 4,754.08 -3,706.20 -22.53 3,706.25 0.00 0.00 0.00 8,400.00 91.38 179.73 4,745.08 -3,706.20 -22.53 3,806.25 0.00 0.00 0.00 8,400.00 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 8,500.00 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 0.00 8,593.84 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 0.00 8,500.00 91.26 179.73 4,742.86 -4,006.11 -21.12 4,006.16 2.00 -2.00 Start DLS 2.00 TFO -180.00 - TGT_8 MAVERICK 921-27D-HZ 8,600.00 91.26 179.73 4,742.24 -4,048.40 -20.92 4,048.45 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000 90.41 179.73 4,740.39 -4,306.09 -19.24 4,406.13 0.00 0.00 90.34.78 90.41 179.73 4,739.97 -4,406.09 -19.24 4,406.13 0.00 0.00 99.38.5 90.41 179.73 4,739.97 -4,406.09 -19.24 4,406.13 0.00 0.00 99.38.5 90.41 179.73 4,739.95 -4,406.09 -19.24 4,406.13 0.00 0.00 PBHL_MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,739.95 -4,406.09 -19.24 4,406.13 0.00 0.00 9.00 PBHL_MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.62 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 2.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.62 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 2.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,700.00 91.04 179,73 4,762.16 -3,106.33 -25.35 3,106.40 0.00 0.00 7,800.00 91.04 179,73 4,760.34 -3,206.31 -24.88 3,206.38 0.00 0.00 0.00 7,900.00 91.04 179,73 4,756.52 -3,306.29 -24.41 3,306.36 0.00 0.00 8,003.69 91.04 179,73 4,756.70 -3,406.28 -23.94 3,406.34 0.00 0.00 0.00 8,003.69 91.04 179,73 4,756.70 -3,406.28 -23.94 3,406.34 0.00 0.00 0.00 8,003.69 91.04 179,73 4,756.70 -3,406.28 -23.50 3,500.01 0.00 0.00 0.00 0.00 0.00 0.00 0.0	7,500.00	91.04	179.73	4,765.80	-2,906.36	-26.29	2,906.44	0.00	0.00	0.00
7,800.00 91.04 179.73 4,760.34 -3,206.29 -24.41 3,306.38 0.00 0.00 7,900.00 91.04 179.73 4,758.52 -3,306.29 -24.41 3,306.36 0.00 0.00 8,000.00 91.04 179.73 4,756.70 -3,406.28 -23.94 3,406.34 0.00 0.00 8,003.69 91.04 179.73 4,755.00 -3,499.95 -23.50 3,500.01 0.00 0.00 Start DLS 2.00 TFO 0.00 - TGT_7 MAVERICK 921-27D-HZ 8,100.00 91.17 179.73 4,754.68 -3,516.87 -23.42 3,516.93 2.00 2.00 Start 483.22 hold at 8110.62 MD 8,200.00 91.38 179.73 4,754.99 -3,606.23 -23.00 3,606.29 0.00 0.00 8,300.00 91.38 179.73 4,750.08 -3,706.20 -22.53 3,706.25 0.00 0.00 8,400.00 91.38 179.73 4,745.08 -3,706.20 -22.53 3,706.25 0.00 0.00 8,500.00 91.38 179.73 4,745.06 -3,906.14 221.59 3,906.19 0.00 0.00 8,500.00 91.38 179.73 4,743.00 -3,999.95 -21.15 3,999.99 0.00 0.00 8,503.84 91.38 179.73 4,743.00 -3,999.95 -21.15 3,999.99 0.00 0.00 Start DLS 2.00 TFO -180.00 - TGT_8 MAVERICK 921-27D-HZ 8,600.00 91.26 179.73 4,741.83 -4,106.10 -20.92 4,048.45 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,034.78 90.41 179.73 4,739.00 -4,490.99 -19.71 4,306.13 0.00 0.00 9,034.78 90.41 179.73 4,739.00 -4,490.99 -19.71 4,306.14 0.00 0.00 9,034.78 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -180.0 9,038.5 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 9,038.5 90.41 179.73 4,739.00 -4,490.99 -19.74 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.00 -4,490.99 -19.78 4,406.13 0.00 0.00 9,038.5 90.41 179.73 4,739.00 -4,490.99 -19.78 4,406.13 0.00 0.00 9,038.5 90.41 179.73 4,739.00 -4,490.99 -18.80 4,499.98 0.00 0.00 0.00 Start DLS 2.00 TFO -2.0 -TGT 9 MAVERICK 921-27D-HZ 9,100.00 90.62 179.73 4,739.00 -4,490.99 -18.87 4,506.12 2.00 2.00 2.00 Start 360.94 hold at 9104.29 MD	7,600.00	91.04	179.73	4,763.98	-3,006.35	-25.82	3,006.42	0.00	0.00	0.00
7,900.00 91.04 179.73 4,758.52 -3,306.29 -24.41 3,306.36 0.00 0.00 8,000.00 91.04 179.73 4,756.70 -3,406.28 -23.94 3,406.34 0.00 0.00 8,093.69 91.04 179.73 4,755.00 -3,499.95 -23.50 3,500.01 0.00 0.00 Start BLS 2.00 TFO 0.00 - TGT_7 MAVERICK 921-27D-HZ 8,100.00 91.17 179.73 4,754.88 -3,506.26 -23.47 3,506.32 2.00 2.00 8,110.62 91.38 179.73 4,754.64 -3,516.87 -23.42 3,516.93 2.00 2.00 Start 483.22 hold at 8110.62 MD 8,200.00 91.38 179.73 4,752.49 -3,606.23 -23.00 3,606.29 0.00 0.00 8,300.00 91.38 179.73 4,752.69 -3,606.20 -22.53 3,706.25 0.00 0.00 8,400.00 91.38 179.73 4,745.26 -3,906.14 -21.15 3,906.29 0.00 0.00 8,500.00 91.38 179.73 4,7	7,700.00	91.04	179.73	4,762.16	-3,106.33	-25.35	3,106.40	0.00	0.00	0.00
8,000.00 91.04 179.73 4,756.70 -3,406.28 -23.94 3,406.34 0.00 0.00 8,093.69 91.04 179.73 4,755.00 -3,499.95 -23.50 3,500.01 0.00 0.00 Start DLS 2.00 TFO 0.00 - TGT_7 MAVERICK 921-27D-HZ 8,100.00 91.17 179.73 4,754.88 -3,506.26 -23.47 3,506.32 2.00 2.00 8,110.62 91.38 179.73 4,754.64 -3,516.87 -23.42 3,516.93 2.00 2.00 Start 483.22 hold at 8110.62 MD 8,200.00 91.38 179.73 4,754.94 -3,606.23 -23.00 3,606.29 0.00 0.00 8,300.00 91.38 179.73 4,750.08 -3,706.20 -22.53 3,706.25 0.00 0.00 8,400.00 91.38 179.73 4,747.67 -3,806.17 -22.06 3,806.22 0.00 0.00 8,500.00 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 8,593.84 91.38 179.73 4,743.00 -3,999.95 -21.15 3,999.99 0.00 0.00 Start DLS 2.00 TFO -180.00 - TGT_8 MAVERICK 921-27D-HZ 8,600.00 91.26 179.73 4,742.86 -4,006.11 -21.12 4,006.16 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,742.86 -4,006.11 -20.92 4,048.45 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,740.39 -4,406.09 -19.24 4,406.13 0.00 0.00 9,000.00 90.41 179.73 4,740.39 -4,406.09 -19.24 4,406.13 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,035.59 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,038.85 90.41 179.73 4,739.90 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start DLS 2.00 TFO -0.00 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00	7,800.00	91.04	179.73	4,760.34	-3,206.31	-24.88	3,206.38	0.00	0.00	0.00
8,093.69 91.04 179.73 4,755.00 -3,499.95 -23.50 3,500.01 0.00 0.00 Start DLS 2.00 TFO 0.00 - TGT_7 MAVERICK 921-27D-HZ 8,100.00 91.17 179.73 4,754.88 -3,506.26 -23.47 3,506.32 2.00 2.00 8,110.62 91.38 179.73 4,754.84 -3,516.87 -23.42 3,516.93 2.00 2.00 Start 483.22 hold at 8110.62 MD 8,200.00 91.38 179.73 4,752.49 -3,606.23 -23.00 3,606.29 0.00 0.00 8,300.00 91.38 179.73 4,750.08 -3,706.20 -22.53 3,706.25 0.00 0.00 8,400.00 91.38 179.73 4,747.67 -3,806.17 -22.06 3,806.22 0.00 0.00 8,500.00 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 8,593.84 91.38 179.73 4,744.80 -3,999.95 -21.15 3,999.99 0.00 0.00 Start DLS 2.00 TFO -180.00 - TGT_8 MAVERICK 921-27D-HZ 8,600.00 91.26 179.73 4,742.26 -4,006.11 -21.12 4,006.16 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.81 -4,06.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.81 -4,206.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.81 -4,206.10 -20.18 4,206.14 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 PBHL_MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.62 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.62 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.62 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.62 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00	7,900.00	91.04	179.73	4,758.52	-3,306.29	-24.41	3,306.36	0.00	0.00	0.00
Start DLS 2.00 TFO 0.00 - TGT_7 MAVERICK 921-27D-HZ	8,000.00	91.04	179.73	4,756.70	-3,406.28	-23.94	3,406.34	0.00	0.00	0.00
8,100.00 91.17 179.73 4,754.88 -3,506.26 -23.47 3,506.32 2.00 2.00 8,110.62 91.38 179.73 4,754.64 -3,516.87 -23.42 3,516.93 2.00 2.00 Start 483.22 hold at 8110.62 MD 8,200.00 91.38 179.73 4,750.08 -3,706.20 -22.53 3,706.25 0.00 0.00 8,300.00 91.38 179.73 4,750.08 -3,706.20 -22.53 3,706.25 0.00 0.00 8,400.00 91.38 179.73 4,741.767 -3,806.17 -22.06 3,806.22 0.00 0.00 8,500.00 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 8,593.84 91.38 179.73 4,743.00 -3,999.95 -21.15 3,999.99 0.00 0.00 Start DLS 2.00 TFO -180.00 - TGT_8 MAVERICK 921-27D-HZ 8,600.00 91.26 179.73 4,742.24 -4,048.40 -20.92 4,048.45 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.11 -4,206.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.18 4,206.14 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,034.78 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	8,093.69	91.04	179.73	4,755.00	-3,499.95	-23.50	3,500.01	0.00	0.00	0.00
8,110.62 91.38 179.73 4,754.64 -3,516.87 -23.42 3,516.93 2.00 2.00 Start 483.22 hold at 8110.62 MD 8,200.00 91.38 179.73 4,752.49 -3,606.23 -23.00 3,606.29 0.00 0.00 8,300.00 91.38 179.73 4,747.67 -3,806.17 -22.06 3,806.22 0.00 0.00 8,500.00 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 8,503.84 91.38 179.73 4,742.86 -3,906.14 -21.59 3,906.19 0.00 0.00 8,600.00 91.26 179.73 4,742.86 -4,006.11 -21.15 3,999.99 0.00 0.00 8,642.29 90.41 179.73 4,742.24 -4,006.11 -21.12 4,006.16 2.00 -2.00 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.4	Start DLS 2.0	00 TFO 0.00 - TG	T_7 MAVERICE	C 921-27D-HZ						
Start 483.22 hold at 8110.62 MD 8,200.00 91.38 179.73 4,752.49 -3,606.23 -23.00 3,606.29 0.00 0.00 8,300.00 91.38 179.73 4,750.08 -3,706.20 -22.53 3,706.25 0.00 0.00 8,400.00 91.38 179.73 4,747.67 -3,806.17 -22.06 3,806.22 0.00 0.00 8,500.00 91.38 179.73 4,743.00 -3,996.14 -21.59 3,906.19 0.00 0.00 8,593.84 91.38 179.73 4,743.00 -3,999.95 -21.15 3,999.99 0.00 0.00 Start DLS 2.00 TFO -180.00 - TGT_8 MAVERICK 921-27D-HZ 8,600.00 91.26 179.73 4,742.86 -4,006.11 -21.12 4,006.16 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.83	,			,						0.00
8,200.00 91.38 179.73 4,752.49 -3,606.23 -23.00 3,606.29 0.00 0.00 8,300.00 91.38 179.73 4,750.08 -3,706.20 -22.53 3,706.25 0.00 0.00 8,400.00 91.38 179.73 4,747.67 -3,806.17 -22.06 3,806.22 0.00 0.00 8,500.00 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 8,593.84 91.38 179.73 4,745.20 -3,999.95 -21.15 3,999.99 0.00 0.00 Start DLS 2.00 TFO -180.00 - TGT_8 MAVERICK 921-27D-HZ 8,600.00 91.26 179.73 4,742.86 -4,006.11 -21.12 4,006.16 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.65 4,106.14 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.18 4,206.14 0.00 0.00 9,000.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,004.78 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 Start 360.94 hold at 9104.29 MD				4,754.64	-3,516.87	-23.42	3,516.93	2.00	2.00	0.00
8,300.00 91.38 179.73 4,750.08 -3,706.20 -22.53 3,706.25 0.00 0.00 8,400.00 91.38 179.73 4,747.67 -3,806.17 -22.06 3,806.22 0.00 0.00 8,500.00 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 8,593.84 91.38 179.73 4,743.00 -3,999.95 -21.15 3,999.99 0.00 0.00 0.00 0.00 0.00 0.00 0.										
8,400.00 91.38 179.73 4,747.67 -3,806.17 -22.06 3,806.22 0.00 0.00 8,500.00 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 8,593.84 91.38 179.73 4,743.00 -3,999.95 -21.15 3,999.99 0.00 0.00 0.00 0.00 0.00 0.00 0.	8,200.00	91.38	179.73	4,752.49	-3,606.23	-23.00	3,606.29	0.00	0.00	0.00
8,500.00 91.38 179.73 4,745.26 -3,906.14 -21.59 3,906.19 0.00 0.00 8,593.84 91.38 179.73 4,743.00 -3,999.95 -21.15 3,999.99 0.00 0.00 Start DLS 2.00 TFO -180.00 - TGT_8 MAVERICK 921-27D-HZ 8,600.00 91.26 179.73 4,742.86 -4,006.11 -21.12 4,006.16 2.00 -2.00 8,642.29 90.41 179.73 4,742.24 -4,048.40 -20.92 4,048.45 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.18 4,206.14 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.42 -4,440.87 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	8,300.00	91.38	179.73	4,750.08	-3,706.20	-22.53	3,706.25	0.00	0.00	0.00
8,593.84 91.38 179.73 4,743.00 -3,999.95 -21.15 3,999.99 0.00 0.00 Start DLS 2.00 TFO -180.00 - TGT_8 MAVERICK 921-27D-HZ 8,600.00 91.26 179.73 4,742.86 -4,006.11 -21.12 4,006.16 2.00 -2.00 8,642.29 90.41 179.73 4,742.24 -4,048.40 -20.92 4,048.45 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.18 4,206.14 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,034.78 90.41 179.73 4,739.42 -4,440.87 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,033.85 90.41 179.73 4,739.90 -4,499.94 -18.80 4,499.98 0.00 0.00	8,400.00	91.38	179.73	4,747.67	-3,806.17	-22.06	3,806.22	0.00	0.00	0.00
Start DLS 2.00 TFO -180.00 - TGT_8 MAVERICK 921-27D-HZ 8,600.00 91.26 179.73 4,742.86 -4,006.11 -21.12 4,006.16 2.00 -2.00 8,642.29 90.41 179.73 4,742.24 -4,048.40 -20.92 4,048.45 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.18 4,206.14 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.00 -4,499.94 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,033.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00	8,500.00	91.38	179.73	4,745.26	-3,906.14	-21.59	3,906.19	0.00	0.00	0.00
8,600.00 91.26 179.73 4,742.86 -4,006.11 -21.12 4,006.16 2.00 -2.00 8,642.29 90.41 179.73 4,742.24 -4,048.40 -20.92 4,048.45 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.18 4,206.14 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.42 -4,440.87 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	8,593.84	91.38	179.73	4,743.00	-3,999.95	-21.15	3,999.99	0.00	0.00	0.00
8,642.29 90.41 179.73 4,742.24 -4,048.40 -20.92 4,048.45 2.00 -2.00 Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.18 4,206.14 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.42 -4,440.87 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,033.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			_							
Start 451.56 hold at 8642.29 MD 8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.18 4,206.14 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.42 -4,440.87 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 <t< td=""><td>8,600.00</td><td>91.26</td><td>179.73</td><td>4,742.86</td><td>-4,006.11</td><td>-21.12</td><td>4,006.16</td><td>2.00</td><td>-2.00</td><td>0.00</td></t<>	8,600.00	91.26	179.73	4,742.86	-4,006.11	-21.12	4,006.16	2.00	-2.00	0.00
8,700.00 90.41 179.73 4,741.83 -4,106.10 -20.65 4,106.15 0.00 0.00 8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.18 4,206.14 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.42 -4,440.87 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	8,642.29	90.41	179.73	4,742.24	-4,048.40	-20.92	4,048.45	2.00	-2.00	0.00
8,800.00 90.41 179.73 4,741.11 -4,206.10 -20.18 4,206.14 0.00 0.00 8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.42 -4,440.87 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	Start 451.56	hold at 8642.29	MD							
8,900.00 90.41 179.73 4,740.39 -4,306.09 -19.71 4,306.14 0.00 0.00 9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.42 -4,440.87 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	8,700.00	90.41	179.73	4,741.83	-4,106.10	-20.65	4,106.15	0.00	0.00	0.00
9,000.00 90.41 179.73 4,739.67 -4,406.09 -19.24 4,406.13 0.00 0.00 9,034.78 90.41 179.73 4,739.42 -4,440.87 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	8,800.00	90.41	179.73	4,741.11	-4,206.10	-20.18	4,206.14	0.00	0.00	0.00
9,034.78 90.41 179.73 4,739.42 -4,440.87 -19.08 4,440.91 0.00 0.00 PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	8,900.00	90.41	179.73	4,740.39	-4,306.09	-19.71	4,306.14	0.00	0.00	0.00
PBHL_MAVERICK 921-27D-HZ(460' FSL, 460' FWL) 9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	9,000.00	90.41	179.73	4,739.67	-4,406.09	-19.24	4,406.13	0.00	0.00	0.00
9,093.85 90.41 179.73 4,739.00 -4,499.94 -18.80 4,499.98 0.00 0.00 Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	9,034.78	90.41	179.73	4,739.42	-4,440.87	-19.08	4,440.91	0.00	0.00	0.00
Start DLS 2.00 TFO -0.20 - TGT_9 MAVERICK 921-27D-HZ 9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	PBHL_MAVE	RICK 921-27D-I	HZ(460' FSL, 46	0' FWL)						
9,100.00 90.53 179.73 4,738.95 -4,506.09 -18.77 4,506.12 2.00 2.00 9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD	9,093.85	90.41	179.73	4,739.00	-4,499.94	-18.80	4,499.98	0.00	0.00	0.00
9,104.29 90.62 179.73 4,738.91 -4,510.37 -18.75 4,510.41 2.00 2.00 Start 360.94 hold at 9104.29 MD			_							
Start 360.94 hold at 9104.29 MD	,			,	,					-0.01
	,			4,738.91	-4,510.37	-18.75	4,510.41	2.00	2.00	-0.01
				4 707 07	4 000 00	40.00	1 000 11	0.00	2.22	0.00
	9,200.00	90.62	1/9./3	4,/3/.87	-4,606.08	-18.30	4,606.11	0.00		0.00
9,300.00 90.62 179.73 4,736.79 -4,706.07 -17.83 4,706.11 0.00 0.00	,						,			0.00
9,400.00 90.62 179.73 4,735.71 -4,806.07 -17.36 4,806.10 0.00 0.00 9,465.23 90.62 179.73 4,735.00 -4,871.29 -17.05 4,871.32 0.00 0.00										0.00 0.00



SDI Planning Report



EDM5000-RobertS-Local Database: Company:

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

MAVERICK 921-27D-HZ Site: Well: MAVERICK 921-27D-HZ

Wellbore: ОН

Project:

Design: PLAN #4 SURFACE Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MAVERICK 921-27D-HZ

GL 4938 & KB 4 @ 4938.00ft (ASSUMED) GL 4938 & KB 4 @ 4938.00ft (ASSUMED)

Minimum Curvature

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_ MAVERICK 921 plan hits target cent - Point	1.56 er	0.00	4,735.00	-4,871.29	-17.05	14,529,346.02	2,047,678.99	39.999943	-109.545823
TGT_9 MAVERICK 921- - plan hits target cent - Point	0.00 er	0.00	4,739.00	-4,499.94	-18.80	14,529,717.30	2,047,671.17	40.000963	-109.545830
TGT_8 MAVERICK 921- - plan hits target cent - Point	0.00 er	0.00	4,743.00	-3,999.95	-21.15	14,530,217.18	2,047,660.66	40.002335	-109.545838
TGT_7 MAVERICK 921- - plan hits target cent - Point	0.00 er	0.00	4,755.00	-3,499.95	-23.50	14,530,717.07	2,047,650.15	40.003708	-109.545847
TGT_5 MAVERICK 921- - plan hits target cent - Point	0.00 er	0.00	4,774.00	-2,499.97	-28.20	14,531,716.84	2,047,629.13	40.006454	-109.545863
TGT_4 MAVERICK 921 - plan hits target cent - Point	0.00 er	0.00	4,795.00	-1,999.97	-30.55	14,532,216.73	2,047,618.62	40.007827	-109.545872
TGT_3 MAVERICK 921 - plan hits target cent - Point	0.00 er	0.00	4,816.00	-1,499.98	-32.90	14,532,716.62	2,047,608.11	40.009200	-109.545880
CASING PT_ MAVERIC - plan hits target cent - Point	0.00 er	0.00	4,836.72	-586.55	-37.19	14,533,629.86	2,047,588.91	40.011708	-109.545895

Casing Points							
	Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (in)	Hole Diameter (in)	
	2,711.43	2,710.00	9 5/8"		9.625	12.250	
	5,178.95	4,836.72	7"		7.000	7.500	
	9,465.23	4,735.00	4 1/2"		4.500	6.125	

2012/05/16 12:45:21PM Page 7 COMPASS 5000.1 Build 40



SDIPlanning Report



Database: EDM5000-RobertS-Local Company: US ROCKIES REGION P

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

Site: MAVERICK 921-27D-HZ
Well: MAVERICK 921-27D-HZ

Wellbore: OH

Project:

Design: PLAN #4 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MAVERICK 921-27D-HZ

GL 4938 & KB 4 @ 4938.00ft (ASSUMED) GL 4938 & KB 4 @ 4938.00ft (ASSUMED)

True

Minimum Curvature

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coord +N/-S (ft)	dinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
550.00	549.68	0.00	-10.90	Start 208.75 hold at 550.00 MD
758.75	757.64	0.00	-29.10	Start Drop -2.00
1,008.75	1,007.32	0.00	-40.00	Start 3256.60 hold at 1008.75 MD
4,265.35	4,263.92	0.00	-40.00	Start DLS 10.00 TFO 179.73
5,178.95	4,836.72	-586.55	-37.19	Start DLS 2.00 TFO 175.21
5,181.98	4,836.65	-589.58	-37.18	Start 910.64 hold at 5181.98 MD
6,092.63	4,816.00	-1,499.98	-32.90	Start DLS 2.00 TFO -0.01
6,151.36	4,814.07	-1,558.68	-32.62	Start 441.71 hold at 6151.36 MD
6,593.07	4,795.00	-1,999.97	-30.55	Start DLS 2.00 TFO 179.99
6,596.53	4,794.85	-2,003.43	-30.53	Start 496.98 hold at 6596.53 MD
7,093.51	4,774.00	-2,499.97	-28.20	Start DLS 2.00 TFO -180.00
7,161.64	4,771.95	-2,568.07	-27.88	Start 932.05 hold at 7161.64 MD
8,093.69	4,755.00	-3,499.95	-23.50	Start DLS 2.00 TFO 0.00
8,110.62	4,754.64	-3,516.87	-23.42	Start 483.22 hold at 8110.62 MD
8,593.84	4,743.00	-3,999.95	-21.15	Start DLS 2.00 TFO -180.00
8,642.29	4,742.24	-4,048.40	-20.92	Start 451.56 hold at 8642.29 MD
9,093.85	4,739.00	-4,499.94	-18.80	Start DLS 2.00 TFO -0.20
9,104.29	4,738.91	-4,510.37	-18.75	Start 360.94 hold at 9104.29 MD
9,465.23	4,735.00	-4,871.29	-17.05	TD at 9465.23

Maverick 921-27D-HZ

Drilling Program

1 of 8

Kerr-McGee Oil & Gas Onshore. L.P.

MAVERICK 921-27D-HZ

Surface: 384 FNL / 252 FWL NWNW BHL: 50 FSL / 225 FWL SWSW

Section 27 T9S R21E

Unitah County, Utah Mineral Lease: UT ST UO 1194A ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1573	Water
Birds Nest	1783	Water
Mahogany	2273	Water
Uteland Butte	4800	Oil/Gas
TVD	4735	
TMD	9465	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

Maverick 921-27D-HZ Drilling Program 2 of 8

7. <u>Abnormal Conditions</u>:

Maximum anticipated bottom hole pressure calculated at 9465' MD, approximately equals 2,081 psi (4730' TVD)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 1,296 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may

Maverick 921-27D-HZ Drilling Program

3 of 8

be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Maverick 921-27D-HZ Drilling Program 4 of 8

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

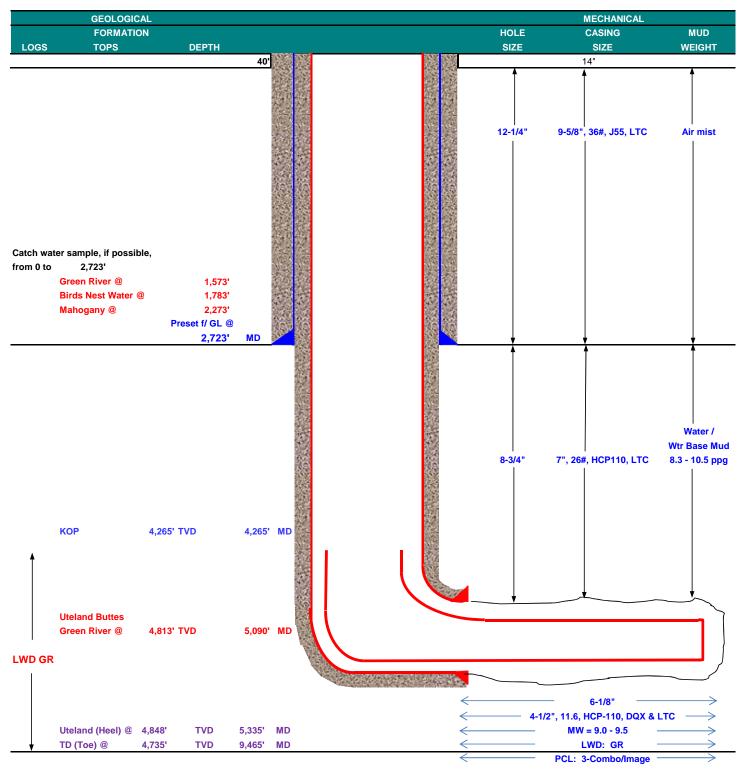
10. <u>Other Information:</u>

Please refer to the attached Drilling Program.

Drilling Program 5 of 8

KerrMcGee Kerr McGee Oil and Gas Onshore LP DRILLING PROGRAM

COMPANY NAME	Kerr McGee Oil and Gas Onshore LP	DATE May 31, 2012								
WELL NAME	Maverick 921-27D-HZ	TVD 4,735'	9,465' MD KB 15'							
FIELD Natural But	tes COUNTY Uintah STATE	Utah ELEVATION	4,936' GL KB 4,951'							
SURFACE LOCATION	NWNW Sec 27, T9S, R21E 384' FNL 252' FWL									
BTM HOLE LOCATION	SWSW Sec 27, T9S, R21E 50' FSL 225' FWL									
Surface	Latitude: 40.013318 Longitude: -109.54	5762 NAD 27								
BHL	Latitude: 39.999943 Longitude: -109.54	5751 NAD 27								
OBJECTIVE ZONE(S)	Uteland ButtesGreen River									
ADDITIONAL INFO	Regulatory Agencies: UDOGM (MINERALS AND SURFACE) and Tri-County Health Dept.									



Drilling Program 6 of 8

Kerr McGee Oil and Gas Onshore LP DRILLING PROGRAM

CASING PROGRAM

								DESIGN FACTORS			
	SIZE	INTE	RVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0-	40'								
								3520	2020	453000	
SURFACE	9-5/8"	0	to	2,723'	36.00	J55	LTC	2.71**	1.59	5.36	
								9960	6230	830402	
INTERMEDIATE	7"	0	to	5,335'	26.00	HCP-110	DQX	4.26	2.66	7.71	
								10690	8650	367000	
PRODUCTION	4-1/2"	4,165'	to	5,180'	11.60	HCP-110	DQX	83.01	3.70	16.10	
								10690	8650	279000	
	4-1/2"	5,180'	to	9,465'	11.60	HCP-110	LTC	>100	3.70	5.61	

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)
- 2) MASP (Prod Casing) = Pore Pressure at TD (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 9.5 ppg) .22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 1297 psi

** Burst SF is low but casing is much stronger than formation at 2653'. EMW @ 2653' for 3520# is 25.5 ppg or 1.33 psi/ft

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500	Premium cmt + 2% CaCl ₂	215	60%	15.60	1.18
Option 1		+ .25 pps flocele				
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
		+ 2% CaCl ₂ + .25 pps flocele				
TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl ₂	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to surface, or	otion 2 wil	l be utilized		
Option 2 LEAD	2,223'	65/35 Poz + 6% Gel + 10 pps gilsonite	520	35%	12.60	1.81
		+.25 pps Flocele + 3% salt BWOW				
TAIL	500	Premium cmt + 2% CaCl ₂	180	35%	15.60	1.18
		+ .25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl ₂	as req.		15.60	1.18
INTERMEDIATE LEAD	3,765'	Premium Lite II + 3% KCI + 0.25 pps	320	10%	12.50	1.98
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	1,570'	50/50 Poz/G + 10% salt + 2% gel	230	10%	14.30	1.25
		+.1% R-3				
PRODUCTION LEAD		No cement will be used on Packers Plus Completion System				
TAIL						

^{**}Excess applied to the Lead slurry is calculated on Open hole Volume only.

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring
	centralizers. Thread lock guide shoe.
INTERMEDIATE	Float shoe, 2 jt w/ centralizer on each, float collar. 1 centralizers on next 23 joints, total 25 centralizers
PRODUCTION	Packer Plus completion system

^{*}Substitute caliper hole volume plus 5% excess for LEAD if accurate caliper is obtained

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

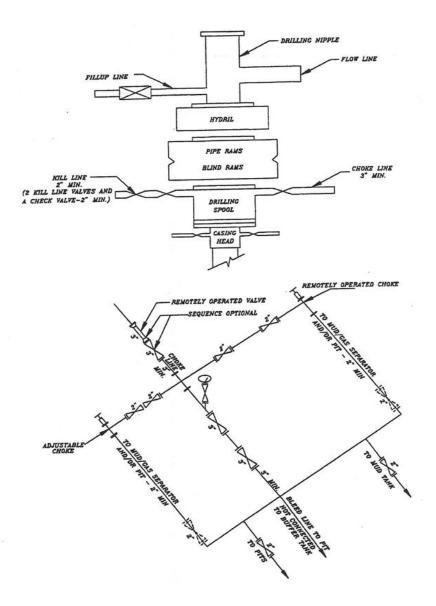
Drilling Program 7 of 8

ADDITIONAL INFORMATION

	Test casing head to 750 ps	si after installing.	Test surface cas	sing to 1,500 p	si prior to drilling	out. To	est intermediat	te casing to 4500 p	osi prior to	drill out.	
	BOPE: 11" 5M with one a	nnular and 2 ram	s. Test to 5,000	psi (annular to	2,500 psi) prior	to drillin	ng out. Record	on chart recorder	&		
	tour sheet. Function test r	ams on each trip	. Maintain safety	valve & inside	BOP on rig floo	r at all ti	imes. Kelly to	be equipped with	upper		
	& lower kelly valves.										
Survey with MWD every 100' during planned angle changes and every 500' when maintaining angle.											
Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.											
DRILLING	ENGINEER:							DATE:		5/16/2012	
		Danny Showe	rs								
DRILLING	SUPERINTENDENT:							DATE:			
		Lovel Young									

Drilling Program 8 of 8

EXHIBIT A MAVERICK 921-27D-HZ



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By KALIB FORD Phone Number 435-790-2921
Well Name/Number MAVERICK 921-27D-HZ
Qtr/Qtr NW4 NW4 Section 27 Township 9S Range 21E
Lease Serial Number <u>UT ST UO 1194A ST</u>
API Number 4304752051

<u>Casing</u> – Time casing run starts, not cementing time	s.
Production Casing Other Date/Time AM PM	RECEIVED JUN 1 4 2012
BOPE Initial BOPE test at surface casing point Other Date/Time 6/14/2012 2 AM PM	MY OF OIL, GAS & MINING
Rig Move Location To: Date/Time AM PM	
Remarks	

CONFIDENTIAL

State of Utah - Notification Form

Operator <u>Anadarko Petroleum</u> Rig Name/# <u>PIONEER 54</u>
Submitted By <u>KALIB FORD</u> Phone Number <u>435-790-2921</u>
Well Name/Number <u>MAVERICK 921-27D-HZ</u>
Qtr/Qtr <u>NW4 NW4</u> Section <u>27</u> Township <u>9S</u> Range 21E
Lease Serial Number <u>UT ST UO 1194A ST</u>
API Number 4304752051

<u>Casing</u> –	Time casing ru	n starts,	not cem	enting time	S.	
Proc	duction Casing er					
Date	e/Time <u>6/17/12</u>	<u>6</u>	АМ 🗌	PM \boxtimes		
Othe		surface	casing p	oint	RECEIVED JUN 2 0 2012 DIV. OF OIL, GAS & MINING	
Rig Move Location						
Date	e/Time		AM [PM		
Remarks RUN 5120' 7" INTERMEDET CASING						

	STATE OF UTAH		FORM 9					
l I	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 1194A					
SUNDRY NOTICES AND REPORTS ON WELLS 6. IF INDIAN, ALLOTTEE OR TRIBE NAME:								
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	deepen existing wells below ntal laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:						
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MAVERICK 921-27D-HZ					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	SHORE, L.P.		9. API NUMBER: 43047520510000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5MATURAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0384 FNL 0252 FWL			COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 27 Township: 09.0S Range: 21.0E Merio	dian: S	STATE: UTAH					
11. CHECI	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	ACIDIZE	ALTER CASING	CASING REPAIR					
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION					
·	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK					
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
SPUD REPORT Date of Spud:		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
	REPERFORATE CURRENT FORMATION							
✓ DRILLING REPORT	L TUBING REPAIR		☐ WATER DISPOSAL ☐					
Report Date: 6/27/2012	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
0/27/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:					
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2530' TO 9403' ON 6/23/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED PIONEER 54 RIG ON 6/27/2012 @ 6:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES. ACTIVITIES.								
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBE 720 929-6029	R TITLE Regulatory Analyst I						
SIGNATURE	. 23 020 0020	DATE						
N/A		6/29/2012						

State of Utah - Notification Form

Operator <u>Anadarko Petroleum</u> Rig Name/# <u>PIONEER 54</u>
Submitted By STUART NEILSON Phone Number 435-790-2921
Well Name/Number MAVERICK 921-27D-HZ
Qtr/Qtr NW4 NW4 Section 27 Township 9S Range 21E
Lease Serial Number <u>UT ST UO 1194A ST</u>
API Number 4304752051

<u>Casing</u> – Time casing run	starts, not cementing	g times.
Production CasingOther		
Date/Time <u>6/25/12</u>	<u>6</u> AM ⊠ PM [\boxtimes
BOPE Initial BOPE test at s Other	surface casing point	
Date/Time	AM PM	RECEIVED JUN 2 6 2012
Rig Move Location To: NBU 921-7L		DIV. OF OIL, GAS & MINING
Date/Time	AM [] PN	1 🗌

Remarks 4.5" PROD CASING HORIZONTAL F/ @ 5000'

	STATE OF UTAH		FORM 9						
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 1194A						
SUNDRY NOTICES AND REPORTS ON WELLS 6. IF INDIAN, ALLOTTEE OR									
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:						
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MAVERICK 921-27D-HZ						
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047520510000						
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHO n Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES						
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0384 FNL 0252 FWL			COUNTY: UINTAH						
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNW Section:	ilP, RANGE, MERIDIAN: 27 Township: 09.0S Range: 21.0E Meridiar	n: S	STATE: UTAH						
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA						
TYPE OF SUBMISSION		TYPE OF ACTION							
	ACIDIZE	ALTER CASING	CASING REPAIR						
NOTICE OF INTENT Approximate date work will start:		CHANGE TUBING	CHANGE WELL NAME						
SUBSEQUENT REPORT	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE						
Date of Work Completion:	L DEEPEN L	FRACTURE TREAT	LI NEW CONSTRUCTION						
	☐ OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK						
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION						
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON						
✓ DRILLING REPORT	L TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL						
Report Date: 8/2/2012	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION						
0/2/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:						
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Started completing the well in July 2012. Well TD at 9,403'. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 06, 2012									
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I							
SIGNATURE N/A		DATE 8/2/2012							

	FORM 9							
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	G	5.LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 1194A					
SUNDRY NOTICES AND REPORTS ON WELLS 6. IF INDIAN, ALLOTTEE OR TRIBE NAME:								
	oposals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MAVERICK 921-27D-HZ					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047520510000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	PH h Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5N&TUERAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0384 FNL 0252 FWL			COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 27 Township: 09.0S Range: 21.0E Meridiar	n: S	STATE: UTAH					
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	ACIDIZE	ALTER CASING	CASING REPAIR					
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
SUBSEQUENT REPORT	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION					
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK					
SPUD REPORT Date of Spud:	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
July of oppus	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
✓ DRILLING REPORT	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL					
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
8/2/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:					
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 8/2/2012. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT. COMPLETION REPORT. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 06, 2012								
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I						
SIGNATURE	120 023 0023	DATE						
N/A		8/6/2012						



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
http://www.blm.gov/ut/st/en.html



IN REPLY REFER TO: 3180 UT-922100

AUG 0 9 2012

Mr. Brett Torina Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street, Suite 1800 Denver, CO 80202

Dear Mr. Torina:

Enclosed is one approved copy of Communitization Agreement No. UTU89155. This agreement communitizes all rights as to oil, gas and associated liquid hydrocarbons producible from the Green River Formation, covering the W2W2 of Section 27, E2E2E2 of Section 28, NENENE of Section 33, and N2NWNW of Section 34, Township 9 South, Range 21 East, SLB&M, Uintah County, Utah. This agreement conforms to the spacing set forth in Order No. 197-012 issued by the Utah Board of Oil, Gas and Mining on January 9, 2012.

This agreement is effective as of May 1, 2012. The communitized area covers 270.00 acres and includes portions of Federal oil and gas lease UTU0576.

Approval of this agreement does not warrant or certify that the operator thereof and other holders of operating rights hold legal or equitable title to those rights in the subject leases which are committed hereto.

Office of Natural Resources Revenue Form MMS-4054, "Oil & Gas Operations Report", must be submitted for this agreement beginning with the month in which drilling operations commenced for the Maverick Federal 921-27D-HZ, located in the NW¼NW¼, Section 27, Township 9 South, Range 21 East, SLB&M, Uintah County, Utah, API # 43-047-52051, on State Lease 1194-A. Form MMS-4054 is to be mailed to the Office of Natural Resources Revenue, P.O. Box 25627, Denver, Colorado 80225-0627.

RECEIVED AUG 1 4 2012 Please furnish all interested principals with necessary evidence of this approval.

Sincerely,

Roger L. Bankert

Chief, Branch of Minerals

Enclosure

cc: UDOGM

SITLA

ONRR w/enclosure (Attn: Leona Reilly)

BLM FOM - Vernal w/enclosure

ACDIZE OF SUBMISSION ACDIZE OF SUBMISSION CAMBO FREAT	Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form 1. TYPE OF WELL Gas Well	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING RY NOTICES AND REPORTS ON Sposals to drill new wells, significantly deereenter plugged wells, or to drill horizontal for such proposals.	I WELLS pen existing wells below	5.LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 1194A 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7.UNIT or CA AGREEMENT NAME: 8. WELL NAME and NUMBER: MAVERICK 921-27D-HZ 9. API NUMBER:				
4. LOCATION OF WELL FOOTAGES A SUBFACE: 0.384 FNL. 0.252 FWL. QTROTTA, SECTION, TOWNSHIP, RANGE, MERIDIAN: CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION AGGIZE ALTECASING CHANGE TO PIEXT AGGIZE CHANGE TO PIEXT CHANGE TO PIEXT CHANGE TO PIEXT AGGIZE CHANGE TO PIEXT CHANGE TO PIEXT CHANGE TO PIEXT Date of Sprint CHANGE TO PIEXT CH	KERR-MCGEE OIL & GAS ON 3. ADDRESS OF OPERATOR:	PH		43047520510000 9. FIELD and POOL or WILDCAT:				
ACIDIZE	4. LOCATION OF WELL FOOTAGES AT SURFACE: 0384 FNL 0252 FWL QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNW Section:	HP, RANGE, MERIDIAN: 27 Township: 09.0S Range: 21.0E Meridian	n: S	COUNTY: UINTAH STATE: UTAH				
NOTICE OF INTENT	TYPE OF SUBMISSION		TYPE OF ACTION					
NAME (PLEASE PRINT) Jaime Scharnowske 9/5/2012 WATER SHUTOFF WILDCAT WELL DETERMINATION OTHER OTHER: SITA STATUS EXTENSION OTHER: OTHER: OTHER: OTHER: MILDCAT WELL DETERMINATION OTHER: OTHER: OTHER: OTHER: ACCEPTED BY the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 11, 2012	Approximate date work will start: SUBSEQUENT REPORT Date of Work Completion:	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION	CHANGE TUBING COMMINGLE PRODUCING FORMATIONS FRACTURE TREAT PLUG AND ABANDON RECLAMATION OF WELL SITE SIDETRACK TO REPAIR WELL	CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON				
Started completing the well in August 2012. Well TD at 9,403 Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 11, 2012 NAME (PLEASE PRINT) Jaime Scharnowske 720 929-6304 PHONE NUMBER Regulartory Analyst SIGNATURE DATE	Report Date:							
Jaime Scharnowske 720 929-6304 Regulartory Analyst SIGNATURE DATE			_	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY				
	SIGNATURE		Regulartory Analyst DATE					

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING



FORM 8

		_			,								l	JT ST	UO 1	194A		
WELI	CON	IPLET	ION	OR R	ECO	MPL	ETIO	N RE	POR	TANE	LOG		6. IF	INDIAN, A	LLOTTE	EE OR TRIB	E NAME	
1a. TYPE OF WELL:	TYPE OF WELL: OIL GAS DRY OTHER 7. UNIT OF CA AGREEMENT NAME UTU88574X																	
b. TYPE OF WORK NEW WELL	(: HORIZ. L LATS. L		EP-	l R E	E- NTRY []	DIFF. RESVR.		OTHE	≣R				ELL NAME MAVEI			'D-HZ ν	
2. NAME OF OPERA	NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE, L.P. 9. API NUMBER: 4304752051																	
3. ADDRESS OF OF P.O.BOX 17		Cl	TY DE	NVER		STATE	СО	ZIP 802	17		NUMBER: 0) 929-6	000				OR WILDCA		
At surface: NWNW S27,T9S,R21E 384 FNL 252 FWL 11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 27 9S 21E S																		
AT TOP PRODUC	AT TOP PRODUCING INTERVAL REPORTED BELOW: NWNW S27,T9S,R21E 1192 FNL 194 FWL																	
AT TOTAL DEPT	H: SWS	SW S27,	,T9S,I	R21E 9	97 FSI	_ 157	FWL	BHL	yd	HSM			1 '	INTAI				JTAH
14. DATE SPUDDED 5/17/2012	D:	15. DATE T. 6/23/2		HED:	16. DATE 8/2/	COMPL 2012	ETED:	A	BANDON	≛D ☐	READY TO P	RODUCE	$ \overline{Z} $		34 G	CDF, RKB,	RT, GL):	
18. TOTAL DEPTH:	٥,	403 718 4 ገ		9. PLUG	BACK T.D		9,403 4,718 4	4721	1	MULTIPLE CO	OMPLETIONS	HOW M	ANY?*	21. DEPT	TH BRID JG SET:			
22. TYPE ELECTRIC				S RUN (S	ubmit cop					23.								
PPC CALIP	ER, PE	/LD/AI/G	R, FN	ΛI						WAS WELL	L CORED?		NO NO		ES	-	nit analysis) nit report)	
											NAL SURVEY	?	NO		ES 🕇	-	nit copy)	
24. CASING AND LI	NER RECO	RD (Report a	ill strings	set in we	ii)													
HOLE SIZE	SIZE/GF		WEIGHT	Т	TOP (MD)	вотто	M (MD)		STAGE CEMENTER CEMENT TYPE & NO. OF SACKS			SLURRY VOLUME (BBL) CEM		CEME	NT TOP **	AMOUNT	PULLED
20"	14"	STL	36.7	7#	C)	4	0			28							
12.25"	9.625"	J-55	36	#	0		2,5	16			630					0		
8.75"	7"	P110	26	#	0		5,1	98		545		545						
6.125"	4.5"	p110	11.6	6#	4,2	21	9,3	88				-	· - .			RECE	IVED)
<u></u>															5	EP 2	2012	
25. TUBING RECO	RD CIS														-D+\	`C / /	****	
SIZE		SET (MD)	PACK	ER SET (N	(D)	SIZE		DEPTH	SET (MD)	PACKE	R SET (MD)		SIZE	D	Eb, H.S	<u> </u>	AS SAMIN	EĄ(Ć MD)
2 7/8"	4	,158									l			<u> </u>				
26. PRODUCING IN							(5) (5)	DOTTO			L (Top/Bot - M		SIZE	NO. HOL	ee l	DERECO	ATION STAT	THE
FORMATION		TOP		вотто		108	(TVD)	вотто	VI (TVD)	INTERVA	IL (TOP/BOL - IV	U)	SIZE	NO. HOL	_		Squeezed	
(A) GREEN F	KIVEK	5,3	328	9,2	273										_ 		Squeezed	一
(B)		+															Squeezed	
(C)		- 					-								-	_=	Squeezed	_
(D)	DE TREATA	MENT CEME	NT SOU					l	1					L	<u> </u>			
28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND TYPE OF MATERIAL																		
			DIIA	4D 60 1	202 PI	RI S C	rneeli	nked/					3 100	MESH	1. 20/	40. AN	D SB F	XCEL
	STAGE 1 (-9154) PUMP 60,293 BBLS Crosslinked/ Linear Gel & 2,519,900 LBS 100 MESH, 20/40, AND SB EXCEL. STAGE 2 (9154-8906) 19 STAGES																	
STAGE 3 (8906-8702																		
29. ENCLOSED AT			<u> </u>													30. WELI	L STATUS:	
ELECT	RICAL/MEC	HANICAL LO		CEMENT	VERIFICA	ATION		GEOLOGI CORE AN	C REPOR ALYSIS	-	DST REPORT			TIONAL S	URVEY		PROD)
																1		

94	INITERIAL	PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRI 8/2/2012	ODUCED:	TEST DA 8/5/2			HOURS TESTED	: 24	TEST PRODUCTION RATES: →	N OIL - BBL: 244	GAS - MCF: 1,493	WATER -		PROD. METHOD: PUMPING
CHOKE SIZE: 20/64	TBG. PRES	s. CSG. PR 1,0		AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTIC RATES: →	OIL - BBL: 244	GAS - MCF: 1,493	WATER -		INTERVAL STATUS: PROD
		•			INTE	RVAL B (As show	wn in item #26)					
DATE FIRST PRO	ODUCED:	TEST DA	TE:		HOURS TESTED	:	TEST PRODUCTION RATES: →	N OIL - BBL:	GAS MCF:	WATER -	- BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRES	S. CSG. PR	ESS. API GR	AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTIC RATES: →	OIL - BBL:	GAS MCF:	WATER -	- BBL:	INTERVAL STATUS:
			<u></u>		INTE	RVAL C (As show	wn in item #26)					
DATE FIRST PRO	TEST DATE:				HOURS TESTED	:	TEST PRODUCTIO RATES: →	N OIL – BBL:	GAS - MCF:	WATER -	- BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRES	S. CSG. PR	ESS. API GR	AVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTIC RATES: →	OIL - BBL:	GAS - MCF:	WATER -	- BBL:	INTERVAL STATUS:
	<u> </u>				INTE	RVAL D (As sho	wn in item #26)					
DATE FIRST PRO	ODUCED:	TEST DA	TÉ:				TEST PRODUCTIO RATES: →	N OIL - BBL:	GAS MCF:	WATER -	- BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRES	S. CSG. PR	ESS. API GR	AVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTIC RATES: →	OIL - BBL:	GAS - MCF:	WATER -	- BBL:	INTERVAL STATUS:
32. DISPOSITIO	N OF GAS (S	old, Used for F	uel, Vented, Et	;.)								
33. SUMMARY (Show all importar tested, cushion u	nt zones of po	rosity and conte	ents thereof: Cor	ed interval ures and re	s and all drill-stem ecoveries.	tests, including de		34. FORMATION	I (Log) MARKERS:			
Formatio	on	Top (MD)	Bottom (MD)		Descript	ions, Contents, etc	.	Top Name (Measured Depth)				

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER BIRD'S NEST MAHOGANY UTELAND BUTTES	1,560 1,770 2,260 4,800

35. ADDITIONAL REMARKS (include plugging procedure)

Attached is the chronological well history & final survey. An Openhole Packers Plus sliding sleeve liner was used therefore there are no perforations.

36. I	hereby certify that the forego	ing and attached information is	complete and correct as	ietermined from all available records.
-------	--------------------------------	---------------------------------	-------------------------	--

NAME (PLEASE PRINT) CARA MAHLER
SIGNATURE

TITLE REGULATORY ANALYST

9/6/2012

This report must be submitted within 30 days of

- completing or plugging a new well
- · drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well

DATE

- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

Send to:

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

^{*} ITEM 20: Show the number of completions if production is measured separately from two or more formations.

^{**} ITEM 24: Cement Top — Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Frac Stages 4-19

Interval	Pkr	Pkr
STAGE 4	8702	8498
STAGE 5	8498	8295
STAGE 6	8295	8047
STAGE 7	8047	7798
STAGE 8	7798	7595
STAGE 9	7595	7391
STAGE 10	7391	7187
STAGE 11	7187	6984
STAGE 12	6984	6780
STAGE 13	6780	6532
STAGE 14	6532	6328
STAGE 15	6328	6125
STAGE 16	6125	5880
STAGE 17	5880	5632
STAGE 18	5632	5428
STAGE 19	5428	5224

Nell: MAVERIC	K 921-27D-HZ						Spud Date: 5/2	/2012		
Project: UTAH-UINTAH Site: MAV					21-27D-l	ΗZ		Rig Name No:		
Event: COMPLE			Start Dat	e: 6/28/20)12	1		End Date:		
	KB @4,953.00us	ft (above Mean S		,		9/S/21/E/27	7/0/0/26/PM/N/3	84/W/0/252/0/0		
.evel)										
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
6/28/2012	0:00 - 8:00	8.00	SURFPR	46	D	P		Wait on daylight.		
	8:00 - 17:0	9.00	SURFPR	47	Α	P		Roustabout crew dig up cellar and bury mouse hole. Prep location for completion stage.		
	17:00 - 0:00	7.00	SURFPR	46	D	Р		SDFN.		
6/29/2012	0:00 - 8:00	8.00	SURFPR	46	D	P		Wait on daylight.		
	8:00 - 12:0 12:00 - 0:00		SURFPR	47 46	A F	P P		JD Services delivered forklift with manbasket. MIRU Cameron. NU 7" 10 K frac stack. Torque to spec. SDFWE, WL set for 7/2/12. CBL and RIH with Baker		
7/2/2012	0:00 - 8:00		SUBSPR	46	D	Р		4 1/2" plug, test casing and TOL. Well shut in. Wait on daylight.		
	8:00 - 9:00		SUBSPR	34	1	P		MIRU Cased Hole Solution. Safety meeting. NU 7" 10K flange. Certified operators on manbasket from JD Services. MU tools 3.66" gauge ring and junk		
	9:00 - 9:45	0.75	SUBSPR	34	G	Р		basket run. RIH w/ gauge ring and junk basket. Several attempts to work through TOL 4210'. Work through TOL and stack out at next collar 4265'. Attempt 10 times to work through. POOH.		
	9:45 - 10:0	5 0.33	SUBSPR	34	G	P		OOH w/ 3.66" GR and junk basket. Two 2"x1" chunks of cement wedged in basket. Make second run with 3.66" gauge ring.		
	10:05 - 10:3	0 0.42	SUBSPR	34	G	Р		RIH and again tag up 4265', work several times and able to get obstruction to move. Made hole to 4313'. POOH.		
	10:30 - 10:5	0 0.33	SUBSPR	34	G	P		OOH w/ 3.66" gauge ring and junk basket. No debris. Cased hole solutions hot shot out 3.75" gauge ring. MU, RIH w/ 3.75".		
	10:50 - 11:2	0 0.50	SUBSPR	34	G	Р		RIH, work through TOL with 3.75" gauge ring. RIH to 4313' and work obstruction to 4410'. POOH.		
	11:20 - 12:0		SUBSPR	34	G	P		OOH w/ 3.75", no debris in junk basket.		
	12:00 - 13:3	0 1.50	SUBSPR	34	I	Р		RIH w/ Baker 4 1/2" Wireline set/RBP. Work through TOL and position plug 4370'. B & C quick test fill hole and put 1000 psi on well. Wireline set plug 4370'. POOH, Bleed down psi.		
	13:30 - 16:3	0 3.00	SUBSPR	41	A	Р		MU and RIH with CCL,CBL,GR- sector bond logging tools. Work through liner top 4210', log from 4276' to surface with 2800 psi applied to wellbore. Cement good with TOC to surface.		
	16:30 - 17:1	5 0.75	SUBSPR	34	1	P		Rig down Wireline. MIRU B & C quick test.		
	17:15 - 20:0	0 2.75	SUBSPR	47	В	P		Begin psi test on casing. Stinger grease fitting leaking. Bleed down. Tie into tubing head. Close bottom frac valve. Test again, psi casing to plug to 8500 psi. Hold psi for one hour. Test good. Bleed		
	20:00 - 20:3	0 0.50	SUBSPR	47	С	Z		down. RDMO B & C testers. Wait on oil states to bring out/swap out bad grease fiftings on ton crown valve.		

Z

Ρ

C

D

47

46

fittings on top crown valve.

SDFN.

SDFN.

Change out fitting on crown valve. Secure well.

20:30 - 21:15

21:15 - 0:00

0.75

2.75

SUBSPR

SUBSPR

Well: MAVERICI	(921-27	D-HZ						Spud Date: 5/2	4/2012	
Project: UTAH-U	INTAH			Site: MA\	/ERICK 9	21-27D-F	IZ		Rig Name No:	
Event: COMPLETION Start Dat				e: 6/28/2012				End Date:		
Active Datum: R	KB @4,9	53.00usft (a	bove Mean S	ea	UWI: NV	V/NW/0/9	/S/21/E/2	7/0/0/26/PM/N/38	84/W/0/252/0/0	
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
7/3/2012	8:00	- 12:00	4.00	SURFPR	47	В	Р		MIRU B & C Quicktest. Test across frac stack to 8500 psi. Outside wing valve replaced, leaked. Called out Cameron and replaced. Frac stack good. SDFN.	
7/4/2012 7/5/2012	7:00	- - 19:00	12.00	SURFPR	47	A	Р		Battery and pit construction continues. Moved in two frac and one flowback tank for CTU. Roustabouts tie in flowline for circulation during CT work. JD Services spotted and hauled in 750 bbls treated	
7/6/2012	7:04	- 7:25	0.35	COMP	48		Р		water. ARRIVE ON LOCATION WITH CTU, HAVE SAFETY MEETING	
	7:25	- 11:38	4.22	COMP	32	Α	Р		MIRU CTU, FUNCTION TEST TOOLS, PRESSURE TEST BOP AND CTU IRON TO 5,000 PSI	
	11:38	- 14:51	3.22	COMP	32	Α	P		RIH,WEIGHT CHECK @ 4,032'=7,500#,TAG PLUG @ 4,381'= -2,000#,PLUG RELEASED/ POOH,OOH @ 14:51	
	14:51	- 18:50	3.98	COMP	32	A	P		ND RBP AND TOOLS,NU VENTURI,RIH,WEIGHT CHECK @ 4,032'=9,500#,FLUID RATE @ 2.5BPM,SEND A SWEEP @ 5,065',RIH TO 5,278',POOH,VENTURI WAS 3/4 FULL AND HAD LOTS OF CEMENT IN IT,SOME OF THE SAMPLES ARE 2"X2" ROCK SIZE,WILL MAKE A SECOND RUN	
	18:50	- 22:00	3.17	COMP	32	Α	Р		NU TOOLS RIH WITH 2ND VENTURI RUN,WEIGHT CHECK @ 4,032=9,500#,FLUID RATE @ 2.5BPM,SEND SWEEP @ 5,065',RIH TO 5,278',POOH OOH WITH VENTURI,ONE ROCK ABOUT 3"X3" AND JUST A LITTLE METAL AND PINS FROM PACKERS	
	22:00	- 23:30	1.50	COMP	32	Α	Р		RDMO CTU,SHUT IN WELL,WAIT FOR DFIT ON 7/9/12	
7/9/2012	8:00	- 10:00	2.00	COMP	33	D	Р		MIRU HES HP.HALLIBURTON ON LOCATION WITH DFIT GAUGES.SPOT TANKER TO FILL CASING, SAFETY MTG.PSI TEST HES IRON TO 8500PSI.OPEN WELL, PUMP 2 BPM TO 3150 PORT SHIFTED, RATE TO 10 BPM @ 1950 AVG PSI PUMP 100BBLS @ 10 BPM.SD ISIP 1421, 5 MIN. 1233,10 MIN. 1118, 15 MIN. 1041	
	10:00	- 18:00	8,00	COMP	47	Α	Р		FINISH FLOWBACK CONTAINMENT, MOVE IN FRAC TANKS AND FINISH FILLING 55 TANKS,HAUL OFF WATER USED FOR CTU TO DISPOSAL.	
7/11/2012	6:00	- 18:00	12.00	COMP	46	F	P		finish flowback containment,finish filling all 55 frac tanks with fresh wate,pit liner installed and started hauling water to pit	
7/12/2012	8:00	- 9:00	1.00	FRAC	33	D	Р		Halliburton on location, download DFIT gauges. Data good. Remove gauges and iron.	
	9:00	- 17:00	8.00	FRAC	47	Α	Р		Continue filling frac pit, JD Services. Sweetwater Services treating and rolling 55 frac tanks.	

Vell: MAVERICI	< 921-27	D-HZ						Spud Date: 5/2			
Project: UTAH-U	INTAH			Site: MA\	ERICK 9	21-27D-H	IZ.		Rig Name No:		
vent: COMPLE	TION			Start Date	e: 6/28/20	12			End Date:		
Active Datum: RKB @4,953.00usft (above Mean Se Level)			ea	UWI: NV	N/NW/0/9)/S/21/E/2	27/0/0/26/PM/N/3	84/W/0/252/0/0			
Date	T	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
7/16/2012	7:00	- 17:00	10.00	SURFPR	47	A	Р		MIRU Weatherford on NBU 183 & NBU 56N2 MONITOR WELLS. Roustabout crew ND plunger lift iron. ND 7 1/16" 5K tubing head flange. NU Weatherford 7 1/16" 5K BOP. Test casing string on each well to 1500 psi. Record/Chart. Casing tested good on each monitor well. RDMO Weatherford, psi truck.		
									MIRU Weatherford PSI truck on Maverick. HU to Pure Energy flowback line. Fill lines and equipment with fluid. Test lines and equipment to 8500 psi.		
									JD Services finished hauling frac water to pit. Chatman Construction completed installation of bird netting. Midstream completed psi test on flowline. Sweetwater MIRU pump and manifold for water transfer during frac.		
7/17/2012	8:00	- 17:00	9.00	SURFPR	47	Α	Р		HES MIRU water manifold, spot sand cans. Begin hauling sand Slickline RIH on monitor well NBU 183, depth 5433'. RIH on NBU 56N2, depth 5395'.		
7/18/2012	7:00	- 11:30	4.50	FRAC	47	Α	Р		MIRU Delsco swabbing unit on MONITOR wells and swab down fluid 1000' from surface. MIRU Schlumberger wireline and seismic tools. 3rd party cranes. RIH w/ tools. Use vibe truck to orient tools.		
	11:30	- 21:00	9,50	FRAC	47	Α	Р		MIRU HES frac equipment, Witness and load Oil States ball dropper. Prime up equipment. Safety meeting. PSI test iron and equipment to 8500 psi. SDFN.		
7/19/2012	4:00	- 12:25	8.42	FRAC	47	В	P		HES on location. S & S frac equipment. Spot and hook up backside pump for ball drop. Bucket test frac additives. Hoses are making containment walls around blender laydown. Blocked up hoses so that containment walls stay up. Safety meeting with all frac personnel. PSI test frac lines and wellhead valves. PSI test Pure flowback lines. Test 2" line from acid pumper. Set frac line pop-off valves to design, set surface casing pop-off. 10:20 Pressure test, 9060 psi main line, 8970 ball launch pump, 7547 psi main line pop-off, 575 surface casing pop-off		
	12:25	- 15:26	3.02	FRAC	36	В	Р		Stage 1 pumped with a few changes on design. SD after 100 mesh. Manifold water release. Started back in crosslink. Did not go above 3 ppg and ended at 2 ppg during resin. ATP – 5391 psi ATR – 40.1 bpm. Ball seated with good shift at 15:26 to open stage 2.		
	15:26	~ 17:31	2.08	FRAC	36	В	P		Stage 2 pumped as designed. ATP – 4066 psi ATR – 41 bpm. Ball seated with good shift at 17:31 to open stage 3. Stage 3 started with higher treating pressures.		
	17:31	- 19:37	2.10	FRAC	36	В	P		Stage 3 started at 17:31, pumped as designed. ATR 41.1 BPM, ATP 3399 psi, ISIP 2007 psi, FG 0.85.		
									Ball for stage 4 hit at 19:37 with normal sleeve shift. Shut down to restart IFS. Will begin stage 4 shortly.		

Well: MAVERIC	K 921-27D-HZ			<u> </u>			Spud Date: 5/2	24/2012	
Project: UTAH-U			Site: MA	VERICK 9	21-27D-H	łΖ		Rig Name No:	
Event: COMPLE			Start Dat	te: 6/28/20	12	T		End Date:	
		sft (above Mean Se				9/S/21/E/2	7/0/0/26/PM/N/3	1/W/0/252/0/0	
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
	19:37 - 20:0		FRAC	46	F	Р		not enough stages loaded into job on hess computer system, so we had to shut down computers, load more stages in the job and reboot computers	
	20:07 - 21:0	08 1,02	FRAC	36	В	Р		Stage 4 started at 20:07, pumped nearly to design with 2 100 mesh stages due to pressure increase with first 100 mesh stage. ATP 5175 psi, ATR 59.2 bpm.	
	21:08 - 21:	51 0.72	FRAC	36	В	Р		Sleeve for stage 5 shifted with normal shift at 21:08. Stage 5 started at 21:08. Increasing pressures when 100 mesh stages hit, continued to increase with decreased rates, pumped slugs of 20/40 and continued to see increasing pressures. Decision was to continue with stage 6.	
								Stage 5 ATR 49.9 bpm, ATP 5907 psi.	
								Sleeve shifted for stage 6 at 21:50 at lower pressure	
	21:51 - 22:	59 1.13	FRAC	36	В	Р		Stage 6 started at 21:51. Ran 2 100 mesh stages due to higher pressures. Pumped the rest to design. ATP 5684 psi, ATR 60.2 bpm.	
	22:59 - 23:	55 0.93	FRAC	36	В	Р		Sleeve for stage 7 shifted to higher pressures Stage 7 started at 22:59, pumped as designed. ATP 5639 psi, ATR 59.8 bpm.	
7/20/2012	0:00 - 0:2	7 0.78	COMP	36	В	Р		Sleeve for stage 8 shifted at 23:55, puming now. Stage 8 started at 23:55. Pumped as designed. ATP 5287 psi, ATR 61.1 bpm.	
	0:47 - 1:8	9 0.87	COMP	36	В	Р		Sleeve shifted for stage 9 at 00:47, 10 bbls late. Stage 9 started at 0:48, pumped as designed. ATP 5132 psi, ATR 61.0 bpm.	
	1:39 - 2:0	0 0.85	COMP	36	В	Р		Sleeve shifted for stage 10 5 bbls early, normal shift. Stage 10 started at 1:39, pumped as designed. ATP 5119 psi, ATR 60.9 bpm.	
	2:30 - 3;2	20 0.83	COMP	36	В	Р		Sleeve for stage 11 shift normal to lower pressures, 3 bbls early. Stage 11 started at 2:30. Pumped as designed. ATP	
								4644 psi, ATR 61.2 bpm. Sleeve for stage 12 shifted 9 bbls early to higher	
	3:20 - 4:	0.83	COMP	36	В	Р		pressures Stage 12 started at 3:20, pumped as designed. ATP 4986 psi, ATR 61 bpm.	
								Sleeve for stage 13 shifted at 4:10, pumped 20 bbls over and shut down for sand and fuel. Expect 45 minute delay.	

	ell: MAVERICK 921-27D-HZ Spud Date: 5/24/2012													
Well: MAVERIC	(921-27D-HZ						Spud Date: 5/2							
Project: UTAH-U	INTAH		Site: MA\	/ERICK 9	21-27D-F	IZ		Rig Name No:						
Event: COMPLE	TION		Start Date: 6/28/2012					End Date:						
Active Datum: Ri Level)	KB @4,953.00usft (a	bove Mean Se	a	UWI: NV	W/NW/0/9	/S/21/E/2	7/0/0/26/PM/N/3	84/\//0/252/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation						
	4:10 - 5:15	1.08	COMP	46	E	Z		shut down for sand and fuel. Expect 45 minute delay. Resumed pumping at 5:15						
	5:15 - 6:05	0.83	COMP	36	В	Р		Stage 13 pumped per design. ATP 4719 psi, ATR 59.5a bpm.						
	6:05 - 8:25	2,33	COMP	36	В	P		Sleeve for stage 14 shifted at 6:05. Stage 14 pumped as designed. ATP 61 bpm, ATR 4699 psi Did not see ball seat. Surged back 1 min and pumped into. SD to confirm ball had launched. Surged back 3 times for 1 min each and pumped into. Surged back 2 times for 3 minutes each and pumped into. Had discussion with Tom and team and agreed to start stage 15 fluid to see if we see sleeve shift. Had 500 psi pressure increase during pad but did not see sleeve open. Started sand. Had 1000 psi sudden pressure decrease at 08:25. Towards end of job, microseismic confirmed that new events started near Stg 15 at 08:25. Felt comfortable that Stg 15 was fraced. Continued to Stage 16.						
	8:25 - 9:52 9:52 - 11:44	1.45 1.87	COMP	36 36	В	P P		Stage 15 pumped. ATR 58.7 bpm, ATP 4799 psi. Good ball seat to open Stage 16. Stage 16 pumped as designed. ATR 57.2 bpm, ATP 4230 psi. Good ball seat to open Stage 17. Stage 17 pumped as designed. ATR 56 bpm, ATP						
	11:44 - 14:25	2.68	СОМР	46	F	z		4053 psi. Good ball seat to open Stage 18. Waiting on 100 mesh to finish last two stages. Expect to be down ~ 2 hrs. Wait on 100 mesh sand delivery from Vernal.						
	14:25 - 15:45	1.33	COMP	36	, В	P		Excess 100 mesh used in prior stages. Stage 18 pumped as designed. ATR 58.2 bpm, ATP						
	15:45 - 16:36	0.85	COMP	36	В	Р		4578 psi. Good ball seat to open Stage 19. Stage 19 pumped as designed. ATR 58.2 bpm, ATP 4411 psi. ISDP 3327 psi, FG = 1.12 5 min 2880 psi, 10 min 2572 psi						
	16:36 - 0:00	7.40	COMP	36	1	Р		Frac is complete. RD Halliburton. Will be shut-in for 24 hrs to let resin sand set up. Will rig up with coil for drill out tomorrow afternoon. Frac completed, rig down Oil States, Protechnois, Schlumberger Micro-seismic, and HES frac equipment. Vac lines and manifold. Vac containment berms and clean location. Well shut in for 24 hrs.						
7/21/2012	7:00 - 13:00	6.00	DRLOUT	47	Α	Р		Spot 5 frac tanks and fill with batched water from frac tanks and frac water from pit.						
	13:00 - 16:15	3,25	DRLOUT	32	1	P	, , , , , , , , , , , , , , , , , , , ,	MIRU Basic CTU. MU Coil connection. Pull and psi test. MU tool string, 3.8125" 5 blade mill. MU to wellhead. Safety meeting. PSI test to 5500 psi through lubricator and flowback iron. 24 hr wait period elapsed. Ready to RIH.						

							ay Kepoit	
Well: MAVERICH	(921-27D-HZ						Spud Date: 5/24	
Project: UTAH-U	INTAH		Site: MAV	ERICK 9	21-27D-l	HZ		Rig Name No:
Event: COMPLE	TION		Start Date	e: 6/28/20	12			End Date:
Active Datum: RI	KB @4,953.00usft (a	bove Mean Se	ea	UWI: NV	N/NW/0/9	9/S/21/E/2	7/0/0/26/PM/N/38	34/W/0/252/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:15 - 17:26	1.18	DRLOUT	32	F	Р		Open well and RIH. Bring fluid online @ 200', .5 bpm. Perform weight check @ 4100'. String weight 13500 #.
	17:26 - 18:05	0.65	DRLOUT	32	F	Р		RIH through liner top and tag @ 5316'. 4080 circ psi, 831 psi wellhead psi. 8 cycles
	18:05 - 19:31	1.43	DRLOUT	32	Α	Р		increase rate to 2.8 bpm,depth 5,317' sw 1000,cp 4100,whp 811
	19:31 - 19:45	0.23	DRLOUT	32	Α	Ρ		decrease rate to 2.5 bpm,depth 5,317' sw 800,cp 3600,whp 830
	19:45 - 19:49	0.07	DRLOUT	32	Α	Р		send 10 bbl sweep 2.5 bpm,depth 5,318' s/w 800,cp 3600,whp 830
	19:49 - 19:53	0.07	DRLOUT	32	Α	P		increase rate to 2.8 bpm 2.5 bpm,depth 5,318' s/w 1,500,cp 4400,whp 738
	19:53 - 20:05	0.20	DRLOUT	32	Α	Р		decrease rate to 2.5 bpm 2.5 bpm,depth 5,317'
	20:05 - 20:15	0.17	DRLOUT	32	Α	Р		s/w 2,100,cp 3750,whp 778 increase rate to 2.8 bpm 2.8 bpm,depth 5,318'
	20:15 - 20:18	0.05	DRLOUT	32	Α	P		s/w 5,316,cp 4,081,whp 844 decrese rate to 2.5 bpm 2.5 bpm,depth 5,316'
	20:18 - 20:49	0,52	DRLOUT	32	Α	Р		s/w 2,000,cp 3468,whp 808 send 10 bbl sweep 2.5 bpm,depth 5,318' s/w -2,500,c/p 3514,whp 631
	20:49 - 20:51	0.03	DRLOUT	32	Α	Р		increase rate to 2.8 bpm depth 5,318' s/w -1,950,c/p 4100,whp 640
	20:51 - 21:30	0.65	DRLOUT	32	Α	Р		send 10 bbl sweep 2.8 bpm,depth 5,332' s/w 3,200,c/p 4305,whp 602
	21:30 - 22:16	0.77	DRLOUT	32	Α	Р		send 10 bbl sweep 2.8 bpm,depth 5,330' s/w 1,580 c/p 4146,whp 597
	22:16 - 22:30	0,23	DRLOUT	32	Α	P		send 20 bbl sweep 2.8 bpm,depth 5,329' s/w 2,000 ,c/p 4,240,whp 575
	22:30 - 22:47	0.28	DRLOUT	32	Α	P		wiper trìp 2.8 bpm depth 5,328' s/w 16,500 c/p 4240,whp 570
	22:47 - 23:12	0.42	DRLOUT	32	Α	Р		rih 2.8 bpm depth 4,230' s/w 12,700 c/p 3797,whp 572
	23:12 - 23:35	0.38	DRLOUT	32	Α	Р		re-tag 2.8 bpm depth 5,326' s/w 5,000 c/p 4062,whp 552 cycles 2
	23:35 - 0:00	0.42	DRLOUT	32	Α	Р		send 20 bbl sweep 2.8 bpm depth 5,330' s/w 5,200 c/p 3877,whp 535
7/22/2012	0:00 - 2:15	2.25	COMP	32	Α	P		pooh
	2:15 - 3:32	1.28	COMP	32	Α	Р		pull off well and replace motor,set on well,function test,pressure test to 5,000 psi,rih,bring on fluid @ 200' 0.5 bpm s/w -1,546 c/p 848 whp 512
	3:32 - 4:19	0.78	COMP	32	Α	Р		weight check increase rate 2.5 bpm depth 4,050' s/w 11,260 c/p 3154 whp 551

Operation Summary Report

 Well: MAVERICK 921-27D-HZ
 Spud Date: 5/24/2012

 Project: UTAH-UINTAH
 Site: MAVERICK 921-27D-HZ
 Rig Name No:

 Event: COMPLETION
 Start Date: 6/28/2012
 End Date:

Date	Time	Duration	Phase	Code	Sub	P/U	MD From	Operation
	Start-End	(hr)			Code		(usft)	
	4:19 - 4:50	0.52	COMP	32	Α	P		re-tag @ 5,316' @ 2.5 bpm s/w 13,488 c/p 3144 whp 478 cycles 12
	4:50 - 5:38	0.80	COMP	32	Α	Р		increase rate to 2.8 bpm @ 5,308' s/w 11,504 c/p 3793 whp 430
	5:38 - 6:06	0.47	COMP	32	Α	Р		decrease rate to 2 bpm @ 5,318' s/w 10,700 c/p 2281 whp 445
	6:06 - 6:27	0.35	COMP	32	Α	Р		increase rate to 2.5 bpm @ 5,319' s/w 3,500 c/p 3350 whp 427
	6:27 - 7:08	0.68	COMP	32	Α	P		Send 10 bbl sweep.
	7:08 - 10:22	3.23	COMP	32	Α	Р		Vary rates and work string. Unable to make hole. 18 stalls. Last stall we were unable to get any torque and had negative weight on the string. Motor failed. POOH.
	10:22 - 11:47	1.42	COMP	32	Α	Р		OOH w/ tools. Function test motor and confirmed it was bad. Hot shot another motor from Fort Morgan yard.
	11:47 - 13:20	1.55	COMP	32	Α	P		Cut 100' of coil string. MU 2" wash nozzle, slick string. MU to well.
	13:20 - 16:10	2.83	COMP	32	Α			RIH w/ 2" slick string. RIH through first sleeve. RIH to top of 2nd sleeve. Pump sweep. POOH.
	16:10 - 18:30	2.33	COMP	32	Α	Р		OOH w/ wash nozzle assembly. Break down tools. MU to well and wait on motor to AOL.
	18:30 - 22:40	4.17	COMP	46	F	Р		wait on new motors from colorado
	22:40 - 23:42	1.03	COMP	32	Α	Р		pull off well, mu coil connector/pull test to 25k pressure test bha to 2500 psi set on well, function test
	23:42 - 0:00	0.30	COMP	32	Α	Р		pressure test stack to 5,500psi open well,rih bring pump online @ 200' s/w -3,500 cp 902 whp 407
23/2012	0:00 - 0:50	0.83	COMP	32	Α	Р		weight check / increase fluid rate 2.5 bpm, depth 4,100' s/w 9,700 cp 3280 whp 411
	0:50 - 1:22	0.53	COMP	32	Α	Р		tag obstruction 2.5 bpm,depth 5,317' s/w 3,100 cp 3766 whp 389 cycles 20
	1:22 - 4:11	2.82	COMP	32	Α	Р		change rate to 2.8 bpm depth 5,321' s/w 8,645 cp 3476 whp 327
	4:11 - 5:35	1.40	COMP	32	Α	Р		send 20 bbl sweep change rate to 2.5 bpm
	5:35 - 6:18	0.72	COMP	32	Α	Р		wait for sweep to clear,pooh
	6:18 - 9:19	3.02	COMP	32	Α	P		cut fluid @ 200',ooh,nd motor cut off 100' of coil,n/u coil connector/pull test to 25k,n/u bha,function test,set on well,pressure test to 5000 psi,rih
	9:19 - 9:24	0.08	COMP	32	Α	Р		bring pump online 0.5 bpm,depth 200' s/w -1,400 cp 588 whp 242
	9:24 - 10:21	0.95	COMP	32	Α	Р		weight check/increase fluid rate 2.5 bpm,depth 4,125' s/w 12,000 cp 2450 whp 250
	10:21 - 10:57	0.60	COMP	32	Α	Р		tag sleeve #1 2.5 bpm,depth 5,314' sw 4,500 cp 2417 whp 267

Operation Summary Report

Spud Date: 5/24/2012 Well: MAVERICK 921-27D-HZ Rig Name No: Site: MAVERICK 921-27D-HZ Project: UTAH-UINTAH End Date: Event: COMPLETION Start Date: 6/28/2012

	RKB @4,953.00usft (a	ea	UWI: NW/NW/0/9/S/21/E/27/0/0/26/PM/N/384/W/0/252/0/0								
Level) Date	Time Start-End	Duration (br)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation			
<u> </u>	10:57 - 16:00	(hr) 5.05	COMP	32	A	P	(usit)	pull up off sleeve 2.5 bpm,depth 5,316' sw 17,500,cp 2280,whp 214			
	16:00 - 16:09	0.15	COMP	32	Α	P		re-tag sleeve #1 2.5 bpm,depth 5,315' sw 7,500 whp 214			
	16:09 - 19:18	3.15	COMP	32	Α	Р		send 10 bbl sweep 2.5 bpm,depth 5,324' sw 8,158,cp 2194,whp 179,cycles 2			
	19:18 - 19:50	0.53	COMP	32	Α	P		through sleeve #1 2.5 bpm,depth 5,325' sw 8230,cp 2259,whp 180			
	19:50 - 19:56	0.10	COMP	32	A	P		tag sleeve #2 2.5 bpm,depth 5,510' sw 4,198,cp 2332,whp 188,cycles 7			
	19:56 - 20:18	0.37	COMP	32	Α	P		through sleeve #2 / send 10 bbl sweep 2.5 bpm,depth 5,512' sw 8,844,cp 2326,whp 184			
	20:18 - 20:20	0.03	COMP	32	Α	Р		tag obstruction 2.5 bpm,depth 5,550' cycles 10			
	20:20 - 20:40	0.33	COMP	32	Α	P		send 10 bbl sweep 2.5 bpm,depth 5,557' sw 7,870,cp 2277,whp 167			
	20:40 - 21:35	0.92	COMP	32	A	Р		tag sleeve #3 2.5 bpm,depth 5,713' sw 5,722,cp 2223,whp 164 cycles 6			
	21:35 - 22:09	0.57	COMP	32	Α	P		through sleeve #3,send 10 bbl sweep 2.5 bpm,depth 5,715' sw 6,662,cp 2353,whp 163			
	22:09 - 22:20	0.18	COMP	32	A	P		tag sleeve #4 2.5 bpm,depth 5,960 sw 6,202,cp 2465,whp 165 cycles 9			
	22:20 - 23:00	0.67	COMP	32	Α	P		through sleeve # 4 / send 10 bbl sweep 2.5 bpm,depth 5,962' sw 9,345,cp 2217,whp 166			
	23:00 - 0:00	1.00	COMP	32	Α	Р		tag sleeve #5 2.5 bpm,depth 6,205 sw 7,890,cp 2256,whp 163 cycles 17			
7/24/2012	0:00 - 0:48	0.80	DRLOUT	32	F	P		Drilled through plug #5, send 20 bbl sweep. 8793 # string weight. 2.5 bpm circ rate. 6207', 2365 circ psi, 153 psi wh psi. POOH to add NOV agitator and new 3.75" 5 blade mill.			
	0:48 - 3:09	2.35	DRLOUT	32	F	P		OOH w/ coil and drill-out assembly. Mill spent. BD tool string, add NOV tool and new 3.75" 5 blade mill.			
	3:09 - 3:56 3:56 - 5:19	0.78 1.38	DRLOUT	47 32	A F	P P		Mill spent. BD tool string, add NOV tool and new 3,75" 5 blade mill. RU back to wellhead. Open well, RIH to 4100'. Weight check 21000#. 171			
·	5.50 - 5.79	1,30	DKLOUT	3 <u>Z</u>				psi on wellhead.			

Well: MAVERI	CK 921-27D-HZ						Spud Date: 5/2	24/2012		
Project: UTAH	I-UINTAH		Site: MA\	/ERICK 9	21-27D-H	IZ		Rig Name No:		
Event: COMPI	LETION		Start Date	e: 6/28/20	12			End Date:		
	RKB @4,953.00usft (a	bove Mean S	ea	UWI: N	N/NW/0/9	/S/21/E/2	7/0/0/26/PM/N/3	384/W/0/252/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
	5:19 - 10:33	5.23	DRLOUT	32	F	Р		Work down through first 5 drilled out sleeves. Stalled several times, new mill w/ slightly bigger OD is catching in sleeves. Work back through all 5 sleeves		
	10:33 - 11:43	1.17	DRLOUT	32	F	P		Tag sleeve #6 6423', 10700 # string weight. 2766/129 wh psi. 2.5 bpm circulation rate, 3.5 bpm to flowback.		
	11:43 - 11:52	0.15	DRLOUT	32	F	Р		Through sleeve #6. 5198 bbls pumped. 2720 circ/		
	11:52 - 12:11	0.32	DRLOUT	32	F	Р		Tag sleeve #7 6627', 5800 string wt. 2701/130 wh psi.		
	12:11 - 12:22	0.18	DRLOUT	32	F	Р		Through sleeve #7. 2855/128 wh psi. 5266 bbls pumped.		
	12:22 - 12:35	0.22	DRLOUT	32	ŀF	Р		Tag sleeve #8 6873'. 12400 string wt. 3248 circ/137 wh.		
	12:35 - 12:43	0.13	DRLOUT	32	F	Р		Through sleeve #8. 2874 circ/121 wh psi. 5328 bbls pumped.		
ı	12:43 - 12:56	0.22	DRLOUT	32	F	P		Tag sleeve #9 7076'. 9000 string wt. 2917 circ/ 125 wh psi.		
	12:56 ~ 13:04	0.13	DRLOUT	32	F	Р		Through sleeve #9, send sweep. 5381 bbls pumped. 2915 circ/ 127 wh psi.		
Ì	13:04 - 13:25	0.35	DRLOUT	32	F	Р		Tag sleeve #10 7279'. 10000 string wt. 2950 circ/		
l	13:25 - 13:33	0.13	DRLOUT	32	F	Р		Through sleeve #10, send 20 bbl sweep. 5453 bbls pumped.		
·	13:33 - 13:40	0.12	DRLOUT	32	F	P		Tag sleeve #11 7484'. POOH for wiper run above TOL.		
	13:40 - 15:25	1.75	DRLOUT	32	F	Р		POOH above TOL. Wiper complete. Had to have nitrogen assist during wiper. Returns to flowback @ 2.5 bpm. WH psi 110 psi. Flowback choke wide open.		
: [15:25 - 16:02	0.62	DRLOUT	32	F	Р		RIH after wiper run. Tag obstruction 5571'. Drill on for twenty minutes.		
	16:02 - 16:22	0.33	DRLOUT	32	F	Р		Through obstruction. RIH to sleeve #11.		
	16:22 - 17:30	1.13	DRLOUT	32	F	Р		Re-tag #11 7480', 2684/283 wh psi.		
	17:30 - 17:48	0.30	DRLOUT	32	F	Р		Through sleeve #11. 6020 bbls pumped. 11273 string weight. 2646 circ/274 wh psi.		
	17:48 - 17:57	0.15	DRLOUT	32	F	Þ		Tag sleeve #12 7683'.		
	17:57 - 19:34	1,62	DRLOUT	32	Α	Р		through sleeve send sweep 2.0 bpm,n2 rate 500,depth 7,685' sw 10,630 cp 2491 whp 363		
	19:34 - 19:47	0.22	DRLOUT	32	Α	Р		tag sleeve #13 @ 7,888'		
	19:47 - 19:51	0.07	DRLOUT	32	Α	Р		cut nitrogen		
	19:51 - 20:05	0.23	DRLOUT	32	Α	P		increase rate to 2.5		
	20:05 - 20:49	0.73	DRLOUT	32	A	P		through sleeve send 10 bbl sweep 2.5 bpm,depth 7,889' sw 11,601 cp 2609 whp 219 tag sleeve #14 @ 8,136'		
	20:49 - 21:00	0.18	DRLOUT	32	A					
	21:00 - 21:12	0.20	DRLOUT	32	Α	Р		through sleeve send 10 bbl sweep bring n2 online drop rate to 2.0 n2 rate 500.0 depth 8,136		
	21:12 - 21:23	0.18	DRLOUT	32	Α	Р		sw 10,987 cp 2185 whp 132 tag sleeve #15 @ 8,384'		

Operation Summary Report

Spud Date: 5/24/2012 Well: MAVERICK 921-27D-HZ Site: MAVERICK 921-27D-HZ Rig Name No: Project: UTAH-UINTAH Event: COMPLETION End Date: Start Date: 6/28/2012

		UWI: NW/NW/0/9/S/21/E/27/0/0/26/PM/N/384/W/0/252/0/0								
Level) Date Time Duration	Phase	Code	Sub Code	P/U	MD From (usft)	Operation				
Start-End (hr) 21:23 - 22:05 0.70	DRLOUT	32	A		(dait)	cut n2 increase fluid rate to 2.5 bpm				
22:05 - 22:23 0.30	DRLOUT	32	A	P		through sleeve send 10 bbl sweep 2.5 bpm ,depth 8,382' sw 11,768 cp 2577 whp 138				
22:23 - 22:31 0.13	DRLOUT	32	Α	Р		tag sleeve #16 @ 8,588'				
22:31 - 0:00 1.48	DRLOUT	32	Α	Р		drop fluid rate to 2.0 bpm ,bring on n2 @ 500.0 scf/min @ 8,588' start pooh for wiper run to 4,200'				
7/25/2012 0:00 - 1:56 1.93	DRLOUT	32	F	P		Wiper complete above TOL 4200'. RIH and re-tag sleeve #16.				
1:56 - 2:12 0,27	DRLOUT	32	F	Р		Re-tag sleeve #16 8582', 9904 string weight, 2871 circ psi/ 258 wellhead psi. 2.5 bpm circ rate.				
2:12 - 2:18 0.10	DRLOUT	32	F	P		Tag sleeve #17 8786'. Circ 2981/ wh 261. String wt. 8970#.				
2:18 - 2:31 0.22	DRLOUT	32	F	Р		Through sleeve #17, send 10 bbl sweep. 11544 sting weight, 2531 circ psi/ 195 wh psi.				
2:31 - 2:37 0.10	DRLOUT	32	F	Р		Tag sleeve #18 8990'. Circ psi 2789/. wh psi 203. String wt. 7941 #.				
2:37 - 2:49 0.20	DRLOUT	32	F	Р		Through sleeve #18. Send 10 bbl sweep. 11232 string wt. 2437 circ psi/ 138 wh psi.				
2:49 - 2:58 0.15	DRLOUT	32	F	P		Bring on nitrogen/ drop fluid rate. 2642 circ psi/ 142 wh psi. 9215' depth.				
2:58 - 3:10 0.20	DRLOUT	32	F	Р		@ 9300'. 16214 string weight. 2318 circ psi/ 140 wh psi. Begin POOH.				
3:10 - 7:56 4.77	DRLOUT	32	F	P		@ surface with drill-out tools. Cut fluid. Secure well. RD off WH.				
7:56 - 9:40 1.73	DRLOUT	32	Α	Р		Breakdown drill-out tools. 3.75" blade mill used up. Test connection and motor. MU Venturi, Function test Venturi. MU to wellhead.				
9:40 - 10:51 1.18	DRLOUT	32	Α	Ρ		@ 4000'. Weight check 11600#. RIH				
10:51 - 14:12 3.35	DRLOUT	32	A	P		@ TD 9326'. Sit and circulate, pump 20 bbl sweep. POOH. Tools went right through sleeves. No obstructions running to depth.				
14:12 - 17:30 3.30	DRLOUT	32	A	P		@ Surface with Venturi tools. BD off wellhead.				
17:30 - 18:22 0.87	DRLOUT	32	A	Р		Breakdown Venturi basket. one qt of material. Metal rings, small pieces of shale, set screw, ball from setting liner, rest is sand. MU Protechnics Spectrascan logging tools. HU depth de-coder. MU to wellhead.				
18:22 - 0:00 5.63	FRAC	41	D	Р		RIH w/ Protechnics Spectrascan log.				
7/26/2012 0:00 - 1:00 1.00	COMP	32	Α	Р		pooh w/spectrascan log				
1:00 - 1:30 0.50	COMP	32	Α	P		ooh with log and tools secure well and location,make sure log will download info,start rig down for ctu				
1:30 - 3:30 2.00	COMP	32	Α	Р		rig down ctu total fluid pumped = 12,589 bbls,start mob from location with equipment to town				
3:30 - 7:00 3.50	RUNTBG	33	Α	P		Flow well to tanks to clean-up.				

12:41:26PM 8/28/2012

10

Well: MAVERICH	(921-27D	-HZ		<u> </u>				Spud Date: 5/24	//2012
Project: UTAH-U	INTAH			Site: MA\	/ERICK 9	21-27D-H	IZ		Rig Name No:
Event: COMPLE	TION			Start Date	e: 6/28/20	12			End Date:
Active Datum: RI Level)	⟨B @4,95	3.00usft (a	bove Mean Se	эа	UWI: NV	W/NW/0/9	/S/21/E/2	7/0/0/26/PM/N/38	4/W/0/252/0/0
Date	1	ime rt-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00	- 12:30	5.50	RUNTBG	47	A	Р		Safety meeting. MIRU Gudac workover rig. ND Cameron frac stack. NU BOP's, MIRU Great White snubbing unit. Test BOP's and annular 5000 psi hi/ 250 psi low on pipe and blinds. Test annular 1500 psi. Open well to flowback on 20 choke. 140 psi on well.
	12:30	- 18:00	5,50	RUNTBG	43	В	Р		Open well. Snub in well w/ notched collar, 2 7/8" magnum double disc., one jt 2 7/8" J-55 tubing, seating nipple and 130 jts new 2 7/8" tubing to surface. Land tubing 4158.4' w/ 19' kb. Lock down hanger.
		- 19:30	1.50	RUNTBG	47	A	P		RDMO Great White snubbing unit. Secure well with lower master valve. Flow casing to flowback tanks on 20 choke, 1/2 bpm @ 95 psi. Pick up tools. SD workover activites for night.
	19:30	- 0:00	4.50	FLOWBK	33	A	P		Flow agains to tanks to clean-up.
7/27/2012	0:00 7:00	- 7:00 - 10:00	7.00 3.00	FLOWBK FLOWBK	33 30	A C	P P		Flow casing to tanks to clean-up. RDMOL Dubak Brothers workover rig. RD BOP's. ND bottom frac valve. Cameron hang and NU production tree. Torque to spec. Test hanger to 10K, hold for 15 minutes. Good test. Haul off frac stack. Pure Energy tie into tubing side of production tree. JD Services fill 2 7/8" tubing with fluid.
	10:00	- 11:00 - 0:00	1.00	FLOWBK	35 33	E	P P		RIH w/ double broach to check tubing. POOH. MU chisel, RIH and rupture magnum double discs. POOH w/ slickline and chisel. RDMO Delsco slickline. Shut in casing and flow tubing 1106 hrs.
7/28/2012	0:00	- 0:00	24.00	FLOWBK	33	A	P		Flow well to tanks to clelan-up. Well loading up and unloading strongly once casing is 600 pis. Dialed choke back in to regulate and see if flow will remain constant.
7/29/2012	0:00	- 0:00	24.00	FLOWBK	33	Α	P		Flow well to tanks to clean-up.
7/30/2012	0:00	- 10:00	10.00	FLOWBK	33	A	P		Well open to tanks but not flowing. Tubing dead with 675 psi on casing.
	10:00	- 12:00	2.00	FLOWBK	33	D	Р		MI hot oiler and pump 25 bbls mixed with one drum of paraffin cutter down tubing. Finished pumping 130 psi/ 2 bpm. Watched tubing psi for 5 minutes. 68 psi. Opened to flowback and psi went to 8 psi and .25 bpm returns.
	12:00	- 17:05	5.08	FLOWBK	33	Α	P		Returns fluctuating. Increased to 40 bph/ 30 psi on tubing and slowly tapering off. 1700 hrs 15 psi on tubing/ 20 bph.
	17:05	- 19:40	2.58	FLOWBK	33	Α	P		Well unloading, tubing to 490 psi. Dial choke in from 64/64 to 24/64. Well loaded back up.
	19:40	- 0:00	4.33	FLOWBK	33	Α	P		Choke on 64/64, well lloaded up- not flowing. Casing psi building.
7/31/2012	0:00	- 12:00	12.00	FLOWBK	33	A	P		Well open to tanks on 64/64 choke.
	12:00	- 14:00	2.00	FLOWBK	42 	В	P		MIRU Delsco swabbing unit. Change connections from 2 3/8" to 2 7/8". RIH and stack out 50' from surface. POOH. Cup and weight bars covered in thick oil. Remove swab cup. RIH w/ weight and work through oil 20'. Hoped to work through oil and break loose. No luck. POOH.

							0 10 / 5/0	1/0010	
921-27D-H2	<u> </u>						Spud Date: 5/2		
NTAH			Site: MAV	ERICK 9	21-27D-I	HZ 		Rig Name No:	
TION								End Date:	
(B @4,953.0	Ousft (ab	oove Mean S	ea	UWI: N	N/NW/0/9	9/S/21/E/2	2/10/0/26/PM/N/384/W/0/252/0/0		
		12 7	Phase	Code	Dub	D/II	MD From	Operation	
		1 1	Phase	Code	1 1	F/0		Operation	
		1.50	FLOWBK	31	F	Р	(usiy	MIRU Alder Hot oiler. Safety meeting. Pump 30 bbls, 210 degree water with chemical down tubing. Max psi 95 psi @ 2.8 bpm. SD. Close swab valve and	
15:30 - 1	16:30	1.00	FLOWBK	42	В	Р		open to tanks. Well flowing with 2 psi on tubing. RIH w/ swab to 1300'. Fluid @ 800'. Make four swab runs from 1300'. Fourth run well began flowing, 12 psi on tubing. Release hot oiler and rig down swabbing unit off wellhead.	
16:30 - 2	20:00	3.50	FLOWBK	33	Α	P		Well flowing with 12 psi on tubing to tanks with wide open choke. Flow tapered off and well loaded up.	
20:00 -	0:00	4.00	FLOWBK	33	G	Р		Well loaded up, not flowing. Monitor rest of night on wide open choke.	
0:00 -	7:00	7.00	FLOWBK	33	Α	Р		Well open to tanks, loaded up- not flowing.	
7:00 - 1	12:30	5.50	FLOWBK	42	В	Р		RIH w/ Delsco swabbing line. Pull from 1500' x2, 2000'x2, 2500'x2, 3000'x2. 96 bbls returned during swabbing. 8th run from 3000' well began flowing.	
12:30 -	0:00	11.50	FLOWBK	33		P		TimeTubingCasing 1230150626 1250700631 1254580628 1257685648 1303693654 1305820638 1310660636 1315526628 1320501632 1325360634 1330498628 1340510658 1345423664 1355540668 1400460695 1405550675 1410529695 1415390710 1425406723 1430575703 1435402736 1440612711 1445440762 1450620725 1450620725 1450520795 1510530794 1515670755 1525422790 1530646767 1720443844 1805673849 1900472924 2200646921 2100668989	
								2200646921	
	Time Start-E 14:00 - 1 16:30 - 2 20:00 - 7:00 - 4	Tion (B @4,953.00usft (all Time Start-End 14:00 - 15:30 15:30 - 16:30 16:30 - 20:00 20:00 - 0:00 0:00 - 7:00	Time Duration (hr) 15:30 - 16:30 1.00 16:30 - 20:00 3.50 20:00 - 0:00 4.00 0:00 - 7:00 7.00 7:00 - 12:30 5.50	NTAH	NTAH	NTAH Site: MAVERICK 921-27D-H	Site: MAVERICK 921-27D-HZ TION Start Date: 6/28/2012 UWI: NW/NW/0/9/S/21/E/2 P/U Code Sub P/U Code P/U	Site: MAVERICK 921-27D-HZ Site: MAVERICK 921-27D-HZ	

Operation Summary Report

Well: MAVERIC	K 921-27D-HZ						Spud Date: 5/2	24/2012		
Project: UTAH-I	HATMIL		Site: MA\	VERICK 9	21-27D-l	ΗZ		Rig Name No:		
Event: COMPLE	TION		Start Date	e: 6/28/20)12			End Date:		
Active Datum: F Level)	RKB @4,953.00us	ft (above Mean S	ea	UWI: NW/NW/0/9/S/21/E/27/0/0/26/PM/N/384/W/0/252/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
8/2/2012	0:00 - 13:2	0 13.33	FLOWBK	33	Α	P		Flowing well to tanks to clean-up.		
	13:20 - 0:00	0 10.67	FLOWBK	33	Α	Р		Well flowing on 64/64 choke. Fluid level @ 4100'. Flow well through Pure separator. Establish levels. 1320 hrs send oil and gas to production facilites		
8/3/2012	- 0:00 - 12:4	5 12.75	FLOWBK	33	Α	Р		Well flowing to production through Pure separator.		
	12:45 - 13:1		FLOWBK	47	A	P		SIW to tie in fabricated 2" iron w/ hand choke and install.		
	13:15 - 0:00	10.75	FLOWBK	33	1	Р		Crew out, fab 2" iron and choke off production tree. SIW for 30 minutes, tie in iron to tubing directly to heater treater. Clean up Pure iron with heated water. Begin RD Pure flowback equipment. Team Oilfield on-site to take over flowback duties.		
8/4/2012	0:00 - 0:00	24.00	FLOWBK	33	Α	Р		Team Oilfield monitoring production. Pure Energy racking out equipment. Truck equipment back to Grand Junction 8-5-12.		
8/5/2012	0:00 - 0:00	24.00	FLOWBK	33	Α	Р		Well flowing to production. Team Oilfield monitoring well. Dawn Trucking haul Pure Energy equipment back to Grand Junction		
8/6/2012	0:00 - 11:0	0 11.00	FLOWBK	33	Α	Р		Well flowing to production facilities.		
	11:00 - 13:3	0 2.50	FLOWBK	33	Α	Р		MIRU Adler hot oil services. Begin heating open top flowback tanks. Release JD services forklift. Release all light plants.		
								Chipeta compression down. Well shut in. Open well back up @ 1330 hrs. 1040 psi on tubing.		
								Protechnics surveyed tanks and location. All readings clean.		
	13:30 - 23:0	0 9.50	FLOWBK	47	С	Р		Heat oil in flow-back tanks. Skim and transfer 400 bbls oil to production tank. Drain remaining water to production pit. FINAL REPORT CMP.		
	23:00 - 0:00	1.00	FLOWBK	33	Α	Р		Well flowing to production facilities. Team Oilfield to continue monitoring facilities and well for production.		
8/7/2012	-									

13

					Opera	tion S	umma	ry Report		
Well: MAVERIC	K 921-27D)-HZ		· · · · · · · · · · · · · · · · · · ·				Spud Date: 5/2	24/2012	
Project: UTAH-I	JINTAH			Site: MA	/ERICK 9	21-27D-F	łZ		Rig Name No: PIONEER 54/54, CAPSTAR 310/310	
Event: DRILLIN	G			Start Date	e: 5/14/20	112			End Date: 6/27/2012	
Active Datum: F	RKB @4,95	3.00usft (a	bove Mean S	ea	UWI: N\	N/NW/0/9	/S/21/E/2	7/0/0/26/PM/N/3	84/W/0/252/0/0	
Date	1	ime rt-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
5/24/2012	9:00	- 15:30	6.50	MIRU	01	Α	Р		MOVE RIG 4.5 MILES & RIG UP /// 7 HOWCROFT TRUCKS /// 7 HOWCROFT PERSONEL /// 5 STALLION PERSONEL /// 5 CAPSTAR PERSONEL /// 1 FORKLIFT	
	15:30	- 19:30	4.00	PRPSPD	14	Α	P		WELD ON CONDUCTOR & RIG UP FLOW LINE	
	19:30	- 20:00	0.50	PRPSPD	06	Α	Р		PU 12.25" BIT & 8" MUD MOTOR	
		- 22:00	2.00	DRLSUR	02	В	P		DRILL 12.25" SURFACE HOLE F/ 49'- 210' ROP= 161' @ 107 FPH WOB= 14/22K RPM= 55/105 SPP=800/500 GPM= 595 TRQ= 2600/1900 PU/SO/ROT = 49/46/47 NO LOSSES HOLE IN GOOD SHAPE	
		- 23:30	1.50	DRLSUR	06	Α	Р		TOOH & PU DIR TOOLS, SCRIBE , & TIH	
	23:30	- 0:00	0.50	DRLSUR	02	D	P		DRILL 12.25" SURFACE HOLE F/ 210'-312 ROP= 102' @ 200' FPH WOB= 14/22K RPM= 55/105 SPP=900/700 GPM= 595 TRQ= 2600/1900 PU/SO/ROT = 49/46/47 NO LOSSES HOLE IN GOOD SHAPE	
5/25/2012	0:00	- 10:30	10.50	DRLSUR	02	D	Р		DRILL 12.25" SURFACE HOLE F/ 312'-1475' ROP= 1163' @ 111 FPH WOB= 24/28K RPM= 55/105 SPP=1100/800 GPM= 595 TRQ= 2800/2400 PU/SO/ROT = 92/60/76 NO LOSSES HOLE IN GOOD SHAPE	
	10:30	- 11:00	0.50	DRLSUR	07	Α	P		SERVICE RIG & EQUIPMENT	
	11:00	- 0:00	13.00	DRLSUR	02	D	P		DRILL 12.25" SURFACE HOLE F/ 1475'-2476' ROP= 1001' @ 77 FPH WOB= 24/28K RPM= 55/105 SPP=1200/850 GPM= 595 TRQ= 2800/2400 PU/SO/ROT = 111/76/97 NO LOSSES HOLE IN GOOD SHAPE	

8/28/2012

12:39:08PM

Operation Summary Report

				Opera	tion S	umma	ry Report		
Well: MAVERIC	K 921-27D-HZ						Spud Date: 5/2	24/2012	
Project: UTAH-U	IINTAH		Site: MA\	/ERICK 9	21-27D-ŀ	₹Z		Rig Name No: PIONEER 54/54, CAPSTAR 310/310	
Event: DRILLING	3		Start Dat	e: 5/14/20	12			End Date: 6/27/2012 34/W/0/252/0/0	
Active Datum: R Level)	KB @4,953.00usft (above Mean S	ea	UWI: NV	V/NW/0/9	9/S/21/E/2	7/0/0/26/PM/N/3		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
5/26/2012	0:30 - 1:00 1:00 - 4:00	0.50 0.50 3.00	DRLSUR DRLSUR DRLSUR	02 05 06	A A	P		DRILL 12.25" SURFACE HOLE F/ 2476'-2530 ROP= 54' @ 108 FPH WOB= 24/28K RPM= 55/105 SPP=1200/850 GPM= 595 TRQ= 2800/2400 PU/SO/ROT = 111/76/97 NO LOSSES HOLE IN GOOD SHAPE FINAL POSITION= 2.5' SOUTH & 1.5' WEST OF LINE 81% ROTATE & 19% SLIDE CIRC & COND. HOLE FOR 9.625" CSG LAY DOWN DRILL STRING & DIR TOOLS	
	4:00 - 9:00 9:00 - 9:30	5.00	CSGSUR	12 05	C F	P P		PJSM /// RUN 58 JT'S, 9.625", 36#, J-55, LT&C CSG /// SHOE SET @ 2505' & BAFFLE @ 2460' CIRC 9.625" CSG @ 2505'	
	9:30 - 11:00 11:00 - 12:00	0.50 1.50	CSGSUR	12	E	P		PJSM WITH PRO PETRO CMT CREW /// PUMP 40 BBLS WATER AHEAD FOLLOWED BY 20 BBL GEL WATER FLUSH /// LEAD = 230sx CLASS G CMT @ 11.0 WT & 3.82 YIELD /// TAIL = 200sx CLASS G CMT @ 15.8 WT & 1.15 YIELD /// DROP PLUG & DISPLACE W/ 190 BBL'S WATER /// PLUG DN @ 10:45 5/26/2012 /// BUMP PLUG W/ 900 PSI /// FINAL LIFT = 600 PSI /// CHECK FLOATS - HELD W/ 1 BBL BACK /// FULL RETURNS THRU OUT JOB 20 BBL'S CMT TO SURFACE /// CMT FELL BACK CUT OFF COND. & HANG SURFACE CSG	
	12:00 - 14:00	2.00	CSGSUR	12	E	Р		RUN 200' OF 1" PIPE DN BACK SIDE & TOP OUT W/ 150 sx CLASS G CMT @ 15.8 WT & 1.15 YIELD /// CMT TO SURFACE BUT FELL BACK /// WAIT 1 HOUR & TOP OUT AGAIN W/ 50 sx CMT /// CMT TO SURFACE & STAYED THIS TIME /// RELEASE RIG @ 14:00 05/26/2012 TO THE MORGAN STATE 921-36D4CS	
6/12/2012	18:00 - 0:00	6.00	DRLPRO	01	E	Р		RIGGING DOWN TOP DRIVE, SERVICE LOOP, RIG FLOOR, BACK YARD	
6/13/2012	0:00 - 6:00	6.00	DRLPRO	01	Ē.	P		RIG DOWN FUEL, AIR, WATER, POWER AND PREPARING FOR RIG MOVE	
	6:00 - 18:00	12.00	DRLPRO	01	A	P		RIG MOBILIZATION, 15 MILES WITH WESTROC TRUCKING AND JC CRANE, TRUCKS ON LOCATION @0700, 7 BED TRUCKS, 9 HUAL TRUCKS, 2 FORKLIFTS, 4 SWAMPERS, 2 PUSHERS, 1 CRANE OPERATOR, DERRICK RAISED @1800, TRUCKS RELEASED@1800	
	18:00 - 23:00	5.00	DRLPRO	01	В	Р		BRIDLE DOWN, RIG UP TOP DRIVE, TORQUE TUBE, SERVICE LOOP, RIG FLOOR NIPPLE UP BOP, ORBIT VALVE, CHOKE LINE	
01/ 1/05 : 5	23:00 - 0:00	1.00	DRLPRO	14 14	A	P P		NIPPLE UP BOPE, ORBIT VALVE, CHOKE LINE	
6/14/2012	0:00 - 2:00 2:00 - 6:00	2.00 4.00	DRLPRL DRLPRL	14 15	A A	P		TEST RAMS & ALL VALVES, 250 LOW - 5000 HIGH, ANN 2500, SURFACE CASING TO 1500 FOR 30 MIN'S	
	6:00 - 6:30	0.50	DRLPRL	14	В	Р		INSTALL WEAR BUSHING	

2

Vell: MAVERIC	K 921-27	D-HZ						Spud Date: 5/2	24/2012				
Project: UTAH-I				Site: MA\	/ERICK 9	21-27D-H	IZ		Rig Name No: PIONEER 54/54, CAPSTAR 310/310				
vent: DRILLIN				Start Date	e: 5/14/20)12			End Date: 6/27/2012				
Active Datum: F		53.00usft (a	bove Mean S										
Date	1	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation				
		- 7:30	1.00	DRLPRL	09	Α	Р		CUT & SLIP DRILL LINE				
	7:30	- 11:00	3.50	DRLPRL	06	Α	Р		LAYOUT & STRAP 66 5" HWDP, 30 4.5" HWDP, ADD & COMFIRM TOTAL				
	11:00	- 16:30	5.50	DRLPRL	06	Α	Р		PICKUP BIT #1 MOTOR, DIR TOOLS & SCRIBE, 30 HWDP, 48 JTS 4.5" DRILL PIPE, INSTALL ROTATING RUBBER				
	16:30	- 18:00	1.50	DRLPRL	06	J	Р		PULL OUT OF HOLE TO PICKUP 5" HWDP				
	18:00	- 21:00	3.00	DRLPRL	06	Α	Р		PICKUP 5" HWDP, TIH TO TOP OF CEMENT @ 2420'				
	21:00	- 22:30	1.50	DRLPRL	02	F	Р		DRILLING SHOE TRACK, FLOAT@2460', BAFFLE@2505', NEW HOLE@2540'				
	22:30	- 0:00	1.50	DRLPRL	02	D	P		CLOSED LOOP SYSTEM DRILL F/2540' - 2730', 190'@126.6' PH WOB / 19-22 RPM TOP DRIVE 50- 60, MOTOR-135 SPM 200 GPM 586 MW 8.5 VIS 26 TRQ ON/OFF = 6/8 K PSI ON /OFF 1600/1900 , DIFF 100-500 PU/SO/RT = 165/140/158 K LOST 30 BBLS TO FORMATION SLIDE = ROT = 100% NOV- ON LINE 2- CONVENTIONAL 1.3' ABOVE AND 1.1' LEFT OF PROPOSED TARGET LINE 0 DRILL FLARE, 0 CONN FLARE				
6/15/2012		- 11:00	11.00	DRLPRO	02	D	P		CLOSED LOOP SYSTEM DRILL F/2730' - 4255', 1525'@138.6' PH WOB / 19-23 RPM TOP DRIVE 50- 60, MOTOR-135 SPM 200 GPM 586 MW 8.5 VIS 28 TRQ ON/OFF = 6/8 K PSI ON /OFF 1600/1900 , DIFF 100-500 PU/SO/RT = 165/140/158 K LOST 80 BBLS TO FORMATION SLIDE = 130' IN 1.92 HRS @67.7' PH ROT = 1395' IN 9.08 HRS@ 126.8' PH NOV- ON LINE 2- DEWTERING WITHIN 2' OF BEGINNING CURVE 0 DRILL FLARE, 0 CONN FLARE CIRCULATE 2 BOTTOMS UP WITH HIGH VIS SWEEF				
		- 12:00 - 17:30	1.00 5.50	DRLPRO DRLPRO	05 06	F A	P		TRIP OUT OF HOLE TO PICK UP 2.25 DEG MOTOR				
	47.00	.,,	0.00	DRURDO	00	Δ.	D		AND ROCK BIT				

8/28/2012 12:39:08PM

Ρ

DRLPRO

06

Α

2.50

17:30 - 20:00

TRIP IN THE HOLE

3

/ell: MAVERIC	K 921-27D-HZ						Spud Date: 5/2	24/2012				
roject: UTAH-l	UINTAH		Site: MA\	/ERICK 9	21-27D-H	IZ		Rig Name No: PIONEER 54/54, CAPSTAR 310/310				
vent: DRILLIN	G		Start Date	e: 5/14/20)12			End Date: 6/27/2012				
ctive Datum: F	RKB @4,953.00usft (a	bove Mean S	ea	UWI: NW/NW/0/9/S/21/E/27/0/0/26/PM/N/384/W/0/252/0/0								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation				
6/16/2012	0:00 - 0:00 0:00 - 16:30	16.50	DRLPRL	02	D	P		CLOSED LOOP SYSTEM DRILL F/4255' - 4345', 90'@22.5' PH WOB / 16-20 RPM TOP DRIVE 30 SPM 200 GPM 586 MW 8.5 VIS 28 TRQ ON/OFF = 2/5 K PSI ON /OFF 1400/1600 , DIFF 100-250 PU/SO/RT = 185/150/157 K LOST 80 BBLS TO FORMATION SLIDE = 63' IN 1.67 HRS @37.7' PH ROT = 27' IN 2.33 HRS@11.5' PH NOV- ON LINE 2- DEWATERING 5.5' ABOVE AND 4' RIGHT OF PROPOSED CURVE 0 DRILL FLARE, 0 CONN FLARE CLOSED LOOP SYSTEM DRILL F/4255' - 4868', 613'@37.1' PH WOB / 25-45 RPM TOP DRIVE 30 SPM 200 GPM 586 MW 8.5 VIS 28 TRQ ON/OFF = 0/7 K PSI ON /OFF 1700/1800 , DIFF 100-350 PU/SO/RT = 185/150/157 K LOST 80 BBLS TO FORMATION SLIDE = 317' IN 8.00 HRS@39.5' PH ROT = 296' IN 8.50 HRS@34.8' PH NOV- ON LINE 2- DEWATERING 7' ABOVE AND 7' RIGHT OF PROPOSED CURVE 0 DRILL FLARE, 0 CONN FLARE				
	16:30 - 17:00	0.50	DRLPRL	07	Α	P		RIG SERVICE				
	17:00 - 0:00	7.00	DRLPRL	02	D	Р		CLOSED LOOP SYSTEM DRILL F/4868' - 5040',172'@24.6' PH WOB / 25-45 RPM TOP DRIVE 30 SPM 200 GPM 586 MW 8.5 VIS 28 TRQ ON/OFF = 0/7 K PSI ON /OFF 1700/1800 , DIFF 100-350 PU/SO/RT = 200/150/165 K LOST 80 BBLS TO FORMATION SLIDE = 147' IN 5.67 HRS@25.9' PH ROT = 25' IN 1.33 HRS@18.8' PH NOV- ON LINE 2- DEWATERING 17' BELOW AND 5' RIGHT OF PROPOSED CURVE 0 DRILL FLARE, 0 CONN FLARE				

Nell: MAVERIC	K 921-27D-H7						Spud Date: 5/2	24/2012
Project: UTAH-U			Site: MA	/ERICK 9	21-27D-l			Rig Name No: PIONEER 54/54, CAPSTAR 310/310
Event: DRILLING				e: 5/14/20		<u> </u>		End Date: 6/27/2012
	KB @4,953.00usft (a	hava Maan S				9/S/21/F/2	7/0/0/26/PM/N/3	
-ctive Datum. K -evel)	(ND @4,955.000s)(above Ivican S	sa .			-		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/17/2012	0:00 - 5:30	5.50	DRLPRO	02	D	P '	(40.1)	CLOSED LOOP SYSTEM
6/17/2012	5:30 - 7:30 7:30 - 9:00 9:00 - 10:30 10:30 - 17:00 17:00 - 20:00	2.00 1.50 1.50 6.50	DRLPRO DRLPRO DRLPRO DRLPRO DRLPRO DRLPRO	05 06 05 06	В Е С А А	P P P		DRILL F/5040' - 5190',150'@27.2' PH WOB / 25-45 RPM TOP DRIVE 30 SPM 200 GPM 586 MW 8.5 VIS 28 TRQ ON/OFF = 0/7 K PSI ON /OFF 1700/1800 , DIFF 100-350 PU/SO/RT = 200/150/165 K LOST 80 BBLS TO FORMATION SLIDE = 92' IH 2.5 HRS@36.8' PH ROT = 58' IN 3 HRS@ 19.3' PH NOV- ON LINE 2- DEWATERING 0.08' HIGH AND 5' RIGHT OF PROPOSED CURVE 0 DRILL FLARE, 0 CONN FLARE BRING MUD WEIGHT UP TO 10.1 PPG, CIRCULATE BOTTOMS UP WIPER TRIP TO KOP (4255') CIRCULATE BOTTOMS UP LAYING DOWN DRILL PIPE, 4.5" AND 5" HWDP, DIRECTIONAL TOOLS, MUD MOTOR, BIT RIG UP TESCO CASING CREW
					C	, P		RUN REAMER SHOE, FLOAT, 10 JOINTS OF CASING
6/18/2012	20:00 - 22:00 22:00 - 0:00 0:00 - 5:00	2.00 2.00 5.00	DRLPRO DRLPRO DRLPRO	12 22 22	L	Z Z		TORQUE TURN TONGS INOP, WAITING FOR WELDER TO MODIFY ROTATIONAL INHIBITOR BAR MODIFY ROTATIONAL INHIBITOR BAR
0/18/2012	5:00 - 12:30	7,50	DRLPRO	12	C	P		RUNNING 7" CASING TO KICK OFF POINT
	12:30 - 14:00	1.50	DRLPRO	05	D	Р		CIRCULATE TWO BOTTOMS UP
	14:00 - 16:30	2.50	DRLPRO	12	С	P		RUN 119 JTS OF 7", P 110, DQX CASING, LAND CASING, SHOE @ 5178.90', FLOAT @ 5089.16', RIG DOWN
	16:30 - 19:30	3.00	DRLPRO	05	D	Р		RIGGING DOWN TESCO, CIRCULATING BOTTOMS UP PRIOR TO CEMENT, RIGGING UP CEMENT CREW
	19:30 - 22:00	2.50	DRLPRO	12	E	Р		HELD SAFETY MEETING, PSI TEST LINES TO 3700, PUMP 10 BBL WATER SPACER FOLLOWED BY 25 BBL OF SEALBOND SPACER, LEAD 350 SACKS 12.5 PPG 2.03 YLD, TAIL 195 SACKS 14.3 PPG 1.26 YLD, DISPLACE WITH 194.8 BBLS OF DRILLING MUD, BUMP PLUG WITH 2437 PSI OVER FINAL OF 1289 PSI AND HELD FOR 5 MIN, FLOATS CHECKED AND HELD, 10 BBLS CEMENT BACK TO SURFACE, FULL RETURNS THROUGHOUT JOB
	22:00 - 0:00	2.00	DRLPRO	13	Α	P		WAITING ON CEMENT, RIG DOWN CEMENT CREW, CHANGING OUT RAMS ON BOPE
6/19/2012	0:00 - 1:00	1.00	DRLPRC	14	В	P		CHANGE OUT PIPE RAMS TO 4"
	1:00 - 2:00	1.00	DRLPRC	08	C	P		CHANGE OUT SAVER SUB & PIPE HANDLER DIES
	2:00 - 4:00	2.00	DRLPRC	15	A	P		TEST PIPE RAMS 250 LOW, 5000 HIGH, INTERMEDIATE CASING TO 4500 PSI
	4:00 - 7:00	3.00	DRLPRC	06	A	P -		LAYOUT, STRAP & CORRELATE NUMBERS
	7:00 - 12:00	5.00	DRLPRC	06	A	Р		HELD SAFEY MEETING, R/U P/U TRUCK, P/U DRIL TOO;S & SCRIBE, DRILL PIPE & HWDP TO 5035' TOP OF CEMENT

Well: MAVERIC	K 921-27	D-HZ				•		Spud Date: 5/2	24/2012
Project: UTAH-	UINTAH			Site: MA\	ERICK 9	21-27D-F	-IZ		Rig Name No: PIONEER 54/54, CAPSTAR 310/310
Event: DRILLIN	IG			Start Date	e: 5/14/20	12			End Date: 6/27/2012
Active Datum: F		53.00usft (a	bove Mean S				9/S/21/E/2	7/0/0/26/PM/N/3	84/W/0/252/0/0
Level)				,	ļ		·····		
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:00 14:30	- 17:30 - 17:30 - 0:00	2.50 2.50 0.50 6.50	DRLPRC DRLPRC DRLPRC	02 02 07 02	F D	P P P	(ustry	DRILL CEMENT, F/E & OPEN HOLE TO 5190', SHOE @ 5035', FLOAT @ 5077' CLOSED LOOP SYSTEM DRILL F/ 5190'- 5332', 142'@56.8' PH WOB / 10-25 RPM TOP DRIVE 70 SPM 85 GPM MW 8.4 VIS 35 TRQ ON/OFF = 0/7 K PSI ON /OFF 1700/1800 , DIFF 100-350 PU/SO/RT = 125/97/105 K LOST - BBLS TO FORMATION SLIDE = 13' IH .76 HRS@17' PH ROT = 129' IN 1.74 HRS@74.1' PH NOV- ON LINE 2- DEWATERING 1' BELOW AND 4' LEFT OF PROPOSED LINE 0 DRILL FLARE, 0 CONN FLARE RIG SERVICE CLOSED LOOP SYSTEM DRILL F/ 5332'- 5699',367'@56.4' PH WOB / 10-25 RPM TOP DRIVE 70 SPM 85 GPM MW 8.4 VIS 35 TRQ ON/OFF = 0/7 K PSI ON /OFF 1700/1800 , DIFF 100-350
6/20/2012	0:00	- 16:30	16.50	DRLPRL	02	D	P		PU/SO/RT = 105/85/96 K LOST - BBLS TO FORMATION SLIDE = 61' IH 1.84 HRS@34.1' PH ROT = 306' IN 4.66 HRS@65.7' PH NOV- ON LINE 2- DEWATERING 1' BELOW AND 4' LEFT OF PROPOSED LINE 0 DRILL FLARE, 0 CONN FLARE CLOSED LOOP SYSTEM DRILL F, 5699' - 6893', 1194'@72' PH WOB / 10-25 RPM TOP DRIVE 70 SPM 85 GPM MW 8.4 VIS 35 TRQ ON/OFF = 0/7 K PSI ON /OFF 1700/1800 , DIFF 100-350 PU/SO/RT = 105/85/96 K LOST 40 BBLS TO FORMATION SLIDE = 92' IH 2.86 HRS@32' PH ROT = 1102' IN 13.64 HRS@80.8' PH NOV- ON LINE 2- CONVENTIONAL 1' BELOW AND 4' LEFT OF PROPOSED LINE 0 DRILL FLARE, 0 CONN FLARE RIG SERVICE

Operation Summary Report

				Opera	ition S	Summa	ry Report	
Well: MAVERICI	K 921-27D-HZ						Spud Date: 5/2	24/2012
Project: UTAH-U	INTAH		Site: MA	VERICK 9	21-27D-l	ΗZ		Rig Name No: PIONEER 54/54, CAPSTAR 310/310
Event: DRILLING			Start Dat	e: 5/14/20	12			End Date: 6/27/2012
Active Datum: R Level)	KB @4,953.00ust	t (above Mean Se	эа	UWI: NV	N/NW/0/9	9/S/21/E/2	7/0/0/26/PM/N/3	84/W/0/252/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	17:00 - 0:00		DRLPRL	02	D	P	(usiy	CLOSED LOOP SYSTEM DRILL F/ 6893' - 7077', 184'@26' PH WOB / 10-40 RPM TOP DRIVE 70 SPM 85 GPM 249 MW 8.5 PPG 37 VIS TRQ ON/OFF = 9000/4000 PSI ON /OFF 1200/1000 , DIFF 100-350 PU/SO/RT = 135/85/115 K LOST 10 BBLS TO FORMATION SLIDE = 23' IN 1.89 HRS@12' PH ROT = 161' IN 5.11 HRS@31.5' PH NOV- ON LINE 2- CONVENTIONAL 0.4' BELOW AND 3.5' RIGHT OF PROPOSED LINE 0 DRILL FLARE, 0 CONN FLARE
6/21/2012	0:00 - 1:00	1.00	DRLPRL	05	F	S		DUE TO LOW PR, PUMPED A 10.1 PPG WEIGHTED MUD SWEEP TO CLEAN HOLE. CONDUCTED DRILL OFF TEST TO FIND IDEAL DIFFERENTIAL DRILLING PRESSURE OF 350 PSI RESULTING IN 30-35 WOB
	1:00 - 7:30		DRLPRL	02	D	P		CLOSED LOOP SYSTEM DRILL F/ 7077' - 7265',188'@28.9' PH WOB / 15-35 RPM TOP DRIVE 70 SPM 85 GPM 249 MW 8.6 PPG 37 VIS TRQ ON/OFF = 9500/7500 PSI ON /OFF 1350/1200, DIFF 200-350 PU/SO/RT = 136/83/116 K LOST 60 BBLS TO FORMATION SLIDE = 21' IN 1.58 HRS@ 13.2' PH ROT = 167' IN 4.92 HRS@33.9' PH NOV- ON LINE 2- CONVENTIONAL 0.4' BELOW AND 3.5' RIGHT OF PROPOSED LINE 0 DRILL FLARE, 0 CONN FLARE
	7:30 - 8:30		DRLPRL	05	С	Р		PUMPED 10.1 PPG WEIGHTED MUD SWEEP PRIOR TO TRIPPING OUT FOR NEW BHA, CIRCULATED SURFACE TO SURFACE
	8:30 - 15:00		DRLPRL	06	Α	Р		TRIPPING OUT OF HOLE, TIGHT HOLE @ 6550' (30K OVER), 6438' (5K OVER), 6278' (10K OVER), 6250' (10K OVER), 5600' (20K OVER), 5560' (10K OVER), WHEN EVER TIGHT HOLE ENCOUNTERED RIH TWO STANDS, CIRCULATED AND PUMPED OUT THROUGH TIGHT SPOT.
	15:00 - 19:00	4.00	DRLPRL	06	A 	P		CHANGED OUT BIT AND MUD MOTOR, REORIENTATE DIRECTIONAL TOOLS, TRIPPED IN HOLE, HOLE BEGAN TO BECOME STICKY AFTER 6700' WASH AND REAMED TO BOTTOM FROM 6815' TO 7265'

8/28/2012 12:39:08PM

Vell: MAVERIC	K 921-27D-HZ						Spud Date: 5/2	
roject: UTAH-l	HATMIL		Site: MA\	/ERICK 9	21 - 27D-F	1Z 		Rig Name No: PIONEER 54/54, CAPSTAR 310/310
vent: DRILLIN	G		Start Date					End Date: 6/27/2012
ctive Datum: R	KB @4,953.00usft (a	bove Mean S	ea	UWI: N\	N/NW/0/9	9/S/21/E/2	7/0/0/26/PM/N/3	84/W/0/252/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/22/2012	19:00 - 0:00 0:00 - 13:30	13.50	DRLPRL	02	D	P		CLOSED LOOP SYSTEM DRILL F/ 7265' - 7523', 258'@51.6' PH WOB / 5 - 16 RPM TOP DRIVE 70 SPM 85 GPM 249 MW 8.6 PPG 37 VIS TRQ ON/OFF = 7500/6500 PSI ON /OFF 1450/1250, DIFF 200-350 PU/SO/RT = 145/98/125 K LOST 30 BBLS TO FORMATION SLIDE = 10' IN .92 HRS@ 10.9' PH ROT = 248' IN 4.08 HRS@ 60.8' PH NOV- ON LINE 2- CONVENTIONAL 0.78' ABOVE AND 2.5' RIGHT OF PROPOSED LINE 0 DRILL FLARE, 0 CONN FLARE CLOSED LOOP SYSTEM DRILL F/ 7523' - 8169', 646'@47.8'PH WOB / 7 - 16 RPM TOP DRIVE 70 SPM 85 GPM 249 MW 8.6 PPG 37 VIS TRQ ON/OFF = 7700/6500 PSI ON /OFF 1550/1250, DIFF 200-350 PU/SO/RT = 155/95/132 K LOST 20 BBLS TO FORMATION SLIDE = 110' IN 7.67 HRS@15.3' PH ROT = 536' IN 5.83 HRS@91.9' PH NOV- ON LINE 2- CONVENTIONAL 0.78' ABOVE AND 2.5' RIGHT OF PROPOSED LINE 0 DRILL FLARE, 0 CONN FLARE
	13:30 - 14:00	0.50	DRLPRL	07	Α	Р		RIG SERVICE, GREASE CROWN AND BLOCKS
	14:00 - 0:00	10.00	DRLPRL	02	D	P		CLOSED LOOP SYSTEM DRILL F/ 8169' - 8748',579'@57.9'PH WOB / 7 - 16 RPM TOP DRIVE 70 SPM 85 GPM 249 MW 8.6 PPG 37 VIS TRQ ON/OFF = 7700/6500 PSI ON /OFF 1550/1250, DIFF 200-350 PU/SO/RT = 157/96/125 K LOST 20 BBLS TO FORMATION SLIDE = 167' IN 3 HRS@55.6' PH ROT = 412' OH 7 HRS@55.8' PH NOV- ON LINE 2- CONVENTIONAL 7' BELOW AND 0.6' RIGHT OF PROPOSED TARGET LINE 0 DRILL FLARE, 0 CONN FLARE

8/28/2012 12:39:08PM

				Opera		ullillia	ry Report	
Well: MAVERIC	(921-27D-HZ						Spud Date: 5/2	
Project: UTAH-U	INTAH		Site: MAV	ERICK 9	21-27D-l	HZ 		Rig Name No: PIONEER 54/54, CAPSTAR 310/310
Event: DRILLING	9		Start Date			<u> </u>		End Date: 6/27/2012
Active Datum: R Level)	KB @4,953.00usft (a	above Mean Se	ea	UWI: N	N/NW/0/9	9/S/21/E/2	7/0/0/26/PM/N/3	
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/23/2012	0:00 - 1:30	1.50	DRLPRL	02	D	P		CLOSED LOOP SYSTEM DRILL F/ 8748' - 8834',86'@57.3'PH WOB / 7 - 16 RPM TOP DRIVE 70 SPM 85 GPM 249 MW 8.8 PPG 38 VIS TRQ ON/OFF = 7700/6500 PSI ON /OFF 1550/1250, DIFF 200-350 PU/SO/RT = 157/96/125 K LOST 0 BBLS TO FORMATION SLIDE = 8' IN .58 HRS = 13.7' PH ROT = 78' IN .92 HRS = 84.7' PH NOV- ON LINE 2- CONVENTIONAL 7' BELOW AND 0.6' RIGHT OF PROPOSED TARGET LINE 0 DRILL FLARE, 0 CONN FLARE
	1:30 - 3:00	1.50	DRLPRL	05	F	S		CIRCULALTE SURFACE TO SURFACE TO REDUCE DRAG AND TORQUE. 70 RPM'S WITH 249 GPM. PUMPED A 10.1 PPG WEIGHTED SWEEP
	3:00 - 14:00	11.00	DRLPRL	02	D	P		CLOSED LOOP SYSTEM DRILL F/ 8834' - 9403',569'@51.7'PH WOB / 7 - 16 RPM TOP DRIVE 70 SPM 85 GPM 249 MW 8.8 PPG 38 VIS TRQ ON/OFF = 7700/6500 PSI ON /OFF 1550/1250, DIFF 200-350 PU/SO/RT = 157/96/125 K LOST BBLS TO FORMATION SLIDE = 153' IN 4.25 HRS = 36' PH ROT = 416' IN 6.75 HRS = 61.6' PH NOV- ON LINE 2- CONVENTIONAL 1.2' ABOVE AND 22' LEFT OF PROPOSED TARGET LINE 0 DRILL FLARE, 0 CONN FLARE
	14:00 - 17:00	3.00	DRLPRL	22	Н	Х		STUCK AT THE BIT DURING BACK REAMING LAST CONNECTION. WORKED THROUGH IT AND REGAINED CIRCULATION
	17:00 - 19:00	2.00	DRLPRL	05	В	Р		CIRC & COND HOLE, RAISE MUD WT TO 9.2 PPG
	19:00 - 0:00	5.00	DRLPRL	06	E	Р		SHORT TRIP TO SHOE, TIGHT @ 9350, 9000, 7500 BACK REAM OUT, TIGHT @ 6400 IN REAM THOUGH, WASH & REAM LAST 400' TO BOTTOM PRE-CAUTIONARY
6/24/2012	0:00 - 7:30	7.50	DRLPRC	06	В	Р		PULL OUT OF HOLE FOR LOGS, SLM = 9404.51, RABBIT PIPE, NO TIGHT SPOTS, LAY DOWN DIR TOOLS
	7:30 - 11:30	4.00	DRLPRC	11	D	Р		HELD SAFETY MEETING, R/U & PICKUP LOGGING TOOLS, TEST TOOLS, RUN IN HOLE WITH LOGGING TOOL ON DRILL PIPE TO 4800'
	11:30 - 12:00	0.50	DRLPRC	05	С	P		CIRC OUT GAS & CLEAN HOLE, & LOGGING TOOL
	12:00 - 16:00	4.00	DRLPRC	11	D	Р		PICKUP SIDE DOOR SUB, PULL TEST, CHECK COMMUNICATION, LOG IN HOLE @ 50' PER MIN, TRIPLE COMBO 14 STANDS, LOG OUT 14 STANDS @ 25' PER MIN

					Opera	tion S	Summa	ry Report			
Well: MAVERIC	K 921-27	D-H <i>7</i>						Spud Date: 5/2	24/2012		
Project: UTAH-		7 1 12		Site: MA\	/ERICK 9	21-27D-I	ΗZ		Rig Name No: PIONEER 54/54, CAPSTAR 310/310		
Event: DRILLIN				Start Date					End Date: 6/27/2012		
Active Datum: F		53.00usft (a	bove Mean S				9/S/21/E/2	7/0/0/26/PM/N/3	34/W/0/252/0/0		
Date	1	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
		- 18:00 - 18:30	2.00 0.50	DRLPRC	11	D	P P		BREAK OFF SINGLE, PULL SIDE DOOR SUB & HEAD, TRIP IN HOLE 10 STANDS CIRC OUT GAS CLEAN HOLE & TOOL		
		- 20:30	2.00	DRLPRC	11	D	P		REINSTALL SIDE DOOR SUB & CIRC DOWN LOGGING HEAD, LATCH ON, PULL TEST & CHECK COMMUNICATION		
6/25/2012	20:30	- 20:30 - 3:00	0.00 3.00	DRLPRC DRLPRC	11 11	D D	P P		LOG IN HOLE WITH DRILL PIPE @ 50' PER MIN, TRIPLE COMBO, OUT @ 25' PER MIN TO 9357' PULL OUT OF HOLE LOGGING WITH DRILL PIPE		
6/23/2012	3:00	- 4:30	1.50	DRLPRC	11	D	P		LAY DOWN WINDOW SUB & LOGGING CABLE HEAD		
	4:30	- 8:00	3.50	DRLPRC	06	В	Р		PULL OUT OF HOLE WITH LOGGING TOOLS & LAY DOWN SAME		
	8:00	- 10:30	2.50	DRLPRC	06	E	Р		PICKUP BIT, BIT SUB, 1 JT DRILL PIPE, X/O, REAMER, X/O, TRIP IN HOLE WITH DRILL PIPE & HWDP SLIP ON 115' DRILL LINE		
	10:30	- 11:00	0.50	DRLPRC	09	A E	P P		TRIP IN HOLE WITH REAMER TO 8600'		
		- 13:00 - 14:30	2.00 1.50	DRLPRC DRLPRC	06 03	D	P		WASH & REAM FROM 8600 TO 9403', HOLE STARTING TO GET TIGHT		
	14:30	- 15:30	1.00	DRLPRC	05	F	Ρ		CIRC HOLE CLEAN		
	15:30	- 17:30	2.00	DRLPRC	06	Ε	Р		SHORT TRIP TO 7000'		
	17:30	- 19:00	1.50	DRLPRC	05	С	Р		CIRC & COND HOLE		
	19:00	- 0:00	5.00	DRLPRC	06	D	Р		TRIP OUT TO RUN 4.5" LINER, NO TIGHT SPOTS, LAY DOWN REAMER, BIT SUB & BIT		
6/26/2012	0:00	- 11:30	11.50	CSGPRO	12	С	Р		HELD SAFETY MEETING WITH RIG CREW, BJ, KIMZEY, TSI & ANADARKO COMPLETION GROUP, RIG UP & RUN 4.5" PROD LINER, RIG DOWN KIMZEY TONG & TORQUE TURN		
	11:30	- 14:00	2.50	CSGPRO	12	С	Р		TRIP IN HOLE WITH LINER WITH HWDP & DRILL PIPE TO 9388'		
	14:00	- 16:30	2.50	CSGPRO	12	D	Р		DISPLACE BOTTOM OF HOLE WITH 3% KCL WATER, DROP BALLS & SEAT, PSI TEST DRILL PIPE, WALK UP TO 3000 PSI, TEST BACK SIDE TO 3000 PSI BOTH FOR 15 MIN WITH 45 PSI DROP, PULL-PUSH TEST HANGER FOR PROPER SEAT, STING OUT OF HANGER & DISPLACE WELL BORE WITH KCL WATER		
	16:30	- 0:00	7.50	CSGPRO	06	D	Р		LAY DOWN DRILL PIPE & HWDP, HANGER TOOL		

Р

DRLPRC

DRLPRC

2.00

4.00

06

14

Α

8/28/2012 12:39:08PM

0:00 - 2:00

2:00 - 6:00

6/27/2012

ASSEMBLY, TRIP IN HOLE WITH PIPE OUT OF

NIPPLE DOWN BOPE, CLEAN PITS, PREPARE RIG

FOR MOVE, RELEASE RIG TO THE NBU 921-7L @

DERRICK & LAYDOWN

06:00 2/27/12

FINISH LAY DOWN DRILL PIPE



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MAVERICK 921-27D-HZ MAVERICK 921-27D-HZ

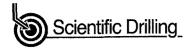
OH

Survey: Survey #2 SDI MWD PRODUCTION

Standard Survey Report

03 July, 2012





SDI Survey Report



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: MAVERICK 921-27D-HZ MAVERICK 921-27D-HZ

Wellbore: Design:

ОН

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Site MAVERICK 921-27D-HZ

GL 4934 & KB 19 @ 4953.00ft (PIONEER 54)

GL 4934 & KB 19 @ 4953.00ft (PIONEER 54)

True

Minimum Curvature

EDM 5000.1 Single User Db

Project

UTAH - UTM (feet), NAD27, Zone 12N

Map System: Map Zone:

Universal Transverse Mercator (US Survey Feet)

Geo Datum:

NAD 1927 (NADCON CONUS) Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

Site

MAVERICK 921-27D-HZ, SECTION 27 T9S R21E

Site Position:

Lat/Long

Northing: Easting:

14,534,216.93 usft 2,047,616.53 usft

Latitude: Longitude:

40.013318 -109.545763

0.94

Position Uncertainty:

0.00 ft

Slot Radius:

13.200 in

Grid Convergence:

Well

From:

MAVERICK 921-27D-HZ, 384 FNL 252 FWL

Well Position

+N/-S +E/-W

0.00 ft 0.00 ft

Northing: Easting:

14,534,216.93 usft 2,047,616.53 usft Latitude: Longitude:

40.013318 -109.545763

Position Uncertainty

0.00 ft

Wellhead Elevation:

ft

Ground Level:

4,934.00 ft

Wellbore

ОН

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2010

09/21/11

11.06

65.86

52,303

Design

ОН

Audit Notes:

Version:

1.0

Phase:

ACTUAL

Tie On Depth:

0.00

Vertical Section:

Depth From (TVD)

+N/-S (ft)

+E/-W (ft)

Direction

(°)

(ft)

0.00

0.00

0.00

181.13

Survey Program

07/02/12 Date

From (ft)

07/03/12 9:18:41AM

To

(ft) Survey (Wellbore) **Tool Name**

Description

10.00 2,581.00 2,484.00 Survey #1 SDI MWD SURFACE (OH) 9,403.00 Survey #2 SDI MWD PRODUCTION (OH) SDI MWD SDI MWD SDI MWD - Standard ver 1.0.1 SDI MWD - Standard ver 1.0.1

Survey

		강작하는 학교이							
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,484.00	0.79	182.19	2,481.86	-2.16	-41.61	2.98	0.00	0.00	0.00
2,581.00	0.77	175.02	2,578.85	-3.47	-41.58	4.29	0.10	-0.02	-7.39
FIRST SDI M	IWD PRODUCTIO	ON SURVEY							
2,671.00	1.05	171.96	2,668.84	-4.89	-41.41	5.71	0.32	0.31	-3.40
2,768.00	0.81	164.61	2,765.82	-6.43	-41.11	7.24	0.28	-0.25	-7.58
2,862.00	0.94	167.34	2,859.81	-7.83	-4 0.76	8.63	0.15	0.14	2.90
2,957.00	1.19	208.15	2,954.80	-9.46	-41.06	10.26	0.82	0.26	42.96
3,052.00	1.20	193.45	3,049.78	-11.29	-41.75	12.12	0.32	0.01	-15.47
3,147.00	0.71	180.97	3,144.76	-12.85	-42.00	13.68	0.56	-0.52	-13.14
3,241.00	0.79	191.06	3,238.76	-14.07	-42.13	14.90	0.16	0.09	10.73



SDI Survey Report



Company:

US ROCKIES REGION PLANNING

Project: Site: UTAH - UTM (feet), NAD27, Zone 12N MAVERICK 921-27D-HZ

Well: MAVERICK 921-27D-HZ

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference: Survey Calculation Method:

Database:

Site MAVERICK 921-27D-HZ

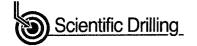
GL 4934 & KB 19 @ 4953.00ft (PIONEER 54) GL 4934 & KB 19 @ 4953.00ft (PIONEER 54)

True

Minimum Curvature

EDM 5000.1 Single User Db

rvey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
3,336.00	0.71	247.39	3,333.75	-14.94	-42.80	15.78	0.75	-0.08	59.29
3,431.00	0.86	222.24	3,428.74	-15.69	-43.82	16.55	0.39	0.16	-26.47
3,525.00	1.01	195.97	3,522.73	-17.01	-44.52	17.89	0.48	0.16	-27.95
3,620.00	0.44	235.95	3,617.72	-18.02	-45.06	18.90	0.77	-0.60	42.08
3,715.00	0.71	216.93	3,712.72	-18.69	-45.71	19.59	0.34	0.28	-20.02
3,810.00	0.35	252.23	3,807.71	-19.25	-46.34	20.16	0.49	-0.38	37.16
3,905.00	0.56	208.25	3,902.71	-19.75	-46.84	20.67	0.41	0.22	-46.29
4,000.00	0.90	189.92	3,997.70	-20.89	-47.19	21.82	0.43	0.36	-19.29
4,095.00	0.55	190.45	4,092.69	-22.08	-47.40	23.01	0.37	-0.37	0.56
4,190.00	0.67	66.54	4,187.69	-22.31	-46.97	23,23	1.13	0.13	-130.43
4,283.00	3.04	158.55	4,280.65	-24.38	-45.57	25.28	3.37	2.55	98.94
4,317.00	6.67	176.12	4,314.52	-27.19	-45.11	28.08	11.42	10.68	51.68
4,348.00	10.22	182.59	4,345.18	-31.74	-45.11	32.62	11.84	11.45	20.87
4,380.00	13.44	184.34	4,376.50	-38.29	-45.52	39.18	10.12	10.06	5.47
4,412.00	16.54	184.16	4,407.40	-46.54	-46.13	47.44	9.69	9.69	-0.56
4,443.00	19.09	184.22	4,436.91	-56.00	-46.82	56.91	8.23	8.23	0.19
4,475.00	21.82	184.32	4,466.89	-67.15	-47.66	68.07	8.53	8.53	0.31
4,506.00	24.74	183.00	4,495.37	-79.37	-48.43	80.31	9.57	9.42	-4.26
4,538.00	27.62	180.75	4,524.08	-93.48	-48.88	94.43	9.52	9.00	-7.03
4,570.00	30.72	180.18	4,552.02	-109.08	-49.00	110.02	9.73	9.69	-1.78
4,602.00	33.80	180.51	4,579.08	-126.15	-49.11	127.10	9.64	9.63	1.03
4,633.00	36.82	180.78	4,604.37	-144.07	-49.31	145.01	9.75	9.74	0.87
4,665.00	39.23	182.10	4,629.58	-163.77	-49.81	164.72	7.95	7.53	4.13
4,697.00	41.80	183.15	4,653.90	-184.54	-50.77	185.50	8.31	8.03	3.28
4,728.00	44.89	183.04	4,676.44	-205.78	-51.92	206.76	9.97	9.97	-0.35
4,760.00	47.54	182.77	4,698.59	-228.85	-53.08	229.85	8.30	8.28	-0.84
4,792.00	49.97	181.94	4,719.68	-252.89	-54.07	253.91	7.84	7.59	-2.59
4,824.00	52.89	181.22	4,739.63	-277.90	-54.76	278.92	9,29	9.13	-2.25
4,855.00	55.72	181.70	4,757.72	-303.06	-55.40	304.09	9.22	9.13	1.55
4,887.00	59.11	181.75	4,774.95	-330.01	-56.21	331.05	10.59	10.59	0.16
4,919.00	63.47	181.52	4,790.32	-358.06	-57.01	359.11	13.64	13.63	-0.72
4,950.00	66.89	181.16	4,803.33	-386.18	-57.67	387.24	11.08	11.03	-1.16
4,982.00	71.19	180.68	4,814.77	-416.05	-58.15	417.12	13.51	13.44	-1.50
5,013.00	73.96	180.43	4,824.05	-445.62	-58.43	446.69	8.97	8.94	-0.81
5,045.00		180.15	4,831.93	-476.63	-58.59	477.70	11.19	11.16	-0.88
5,076.00	81.33	179.67	4,837.62	-507.10	-58.54	508.16	12.35	12.26	-1.55
5,108.00	85.02	178.81	4,841.42	-538.87	-58.12	539.91	11.84	11.53	-2.69
5,226.00	92.62	180.80	4,843.85	-656.75	-57.72	657.76	6.66	6.44	1.69
5,286.00		179.91	4,841.54	-716.70	-58.09	717.71	2.04	-1.40	-1.48
5,378.00		179.73	4,838.28	-808.64	- 57.80	809.63	0.59	0.55	-0.20
5,470.00	93.77	178.92	4,833.41	-900.50	-56.72	901.45	1.83	1.61	-0.88
5,561.00	94.00	179.37	4,827.25	-991.29	-55.36	992.18	0.55	0.25	0.49
5,653.00	92.25	180.79	4,822.23	-1,083.14	-55.49	1,084.03	2.45	-1.90	1.54



SDI Survey Report

MD Reference:

North Reference:



Company:

US ROCKIES REGION PLANNING

Project:

Site: Well: MAVERICK 921-27D-HZ MAVERICK 921-27D-HZ

ОН Wellbore: Design: OH

UTAH - UTM (feet), NAD27, Zone 12N

Local Co-ordinate Reference: TVD Reference:

Site MAVERICK 921-27D-HZ

GL 4934 & KB 19 @ 4953.00ft (PIONEER 54) GL 4934 & KB 19 @ 4953.00ft (PIONEER 54)

True

Minimum Curvature Survey Calculation Method:

EDM 5000.1 Single User Db Database:

Depth				Vertical			Vertical	Dogleg	Build	Turn
5,745.00 92.69 180.32 4,818.27 -1,175.05 -56.38 1,175.94 0.70 0.48 5,836.00 91.89 180.33 4,814.83 -1,265.98 -56.00 1,268.65 0.88 -0.88 5,928.00 91.99 181.28 4,811.52 -1,357.91 -58.18 1,358.90 1.02 0.11 6,020.00 91.71 181.45 4,806.55 -1,449.84 -80.35 1,450.75 0.37 -0.30 6,112.00 92.24 181.83 4,805.38 -1,541.75 -82.88 1,450.75 0.37 -0.30 6,112.00 92.24 181.83 4,805.38 -1,541.75 -82.88 1,542.69 0.71 0.58 6,204.00 91.21 180.91 4,802.61 -1,833.68 -85.18 1,634.65 1.50 -1.12 6,228.00 98.93 180.90 4,801.89 -1,725.66 -86.63 1,728.64 1.39 -1.39 6,386.00 90.60 180.61 4,801.27 -1,817.65 -67.65 1,818.64 0.79 0.73 6,886.00 90.60 180.61 4,801.27 -1,817.65 -67.65 1,818.64 0.79 0.73 6,860.00 88.72 180.07 4,801.81 -1,908.64 -88.39 1,910.62 2.13 -2.04 6,572.00 89.70 179.65 4,803.08 -2,001.63 -88.17 2,002.59 1.16 1.07 6,684.00 94.44 179.26 4,802.97 -2,093.63 -67.29 2,044.55 0.91 0.80 6,766.00 92.95 180.76 4,802.25 -2,185.58 -87.32 2,186.48 3.19 2.73 6,847.00 94.44 181.58 4,797.56 2,276.51 -99.20 2,277.43 2.89 -2.76 6,847.00 94.44 181.58 4,797.56 2,276.51 -99.20 2,277.43 2.89 -2.76 6,835.00 92.29 180.89 4,780.08 2,240.18 -76.76 2,461.21 1.76 -0.76 7,123.00 92.49 183.59 4,780.08 2,260.18 -76.76 2,461.21 1.76 -0.76 7,123.00 90.21 183.26 4,785.46 2,263.54 9.22 1,253.07 1.34 1.32 7,255.00 92.21 180.89 4,780.08 2,251.99 -82.71 2,553.07 1.34 1.32 7,255.00 92.22 179.91 4,780.32 2,2813.58 9.22 0,2744.91 2,71 1.37 7,568.00 93.33 179.67 4,770.74 2,998.32 -92.00 2,754.81 2,71 1.37 1.580.00 91.01 179.43 4,764.62 2,916.45 1.25 3,088.43 1.91 1.10 1.07 6,560.00 91.01 179.43 4,764.62 2,916.45 1.25 3,089.35 3,089.39 2.52 2,191.10 1.00 91.89 183.89 4,755.00 92.21 180.89 4,756.00 92.21 180.89 4,756.80 2,753.80 92.20 2,754.81 1.27 1 1.37 7,956.00 91.01 179.43 4,764.62 2,916.35 9.92.50 2,906.73 1.10 1.10 7,568.00 91.37 185.26 4,763.56 2,753.85 9.92.20 2,754.41 2,71 1.37 7,956.00 91.01 179.65 4,764.60 2,916.40 9.33 9.83 9.22.20 2,754.41 2,71 1.37 1.88 9.22.00 91.79 184.84 4,764.89 2,179.19 1.40 4,764.90 2,255.30 9.92.10 9.97.58 0.22 1.09 1.09 1.00 1.00	Depth	Inclination	Azimuth	Depth		+E/-W	Section	Rate	Rate	Rate
5,838.00 91.69 180.33 4,814.83 -1,285.96 -56.90 1,286.85 0.88 -0.88 5,922.00 91.99 181.28 4,811.82 -1,357.91 -58.18 1,358.80 1.02 0.11 6,020.00 91.71 181.83 4,805.36 -1,541.75 -62.88 1,542.69 0.71 0.58 6,204.00 91.21 180.91 4,802.61 -1,833.68 -65.18 1,634.65 1,50 -1,12 6,296.00 91.21 180.91 4,801.82 -1,725.66 -66.63 1,726.64 1.39 -1.39 6,388.00 90.80 180.61 4,801.27 -1,817.85 -87.95 1,818.64 0.79 0.73 6,480.00 88.72 180.07 4,801.81 -1,909.84 -88.39 1,910.62 2.13 -2.04 6,572.00 89.70 179.85 4,800.38 -2,001.63 -81.72 2,044.55 -9.11 0.00 6,584.70 90.44 181.58 4,767.56 -2,765.	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
5,838.00 91.89 180.33 4,814.63 -1,265.98 -56.80 1,268.85 0.88 -0.88 5,928.00 91.99 181.28 4,815.52 -1,357.91 -58.18 1,358.80 1.02 0.11 6,020.00 91.71 181.45 4,806.58 -1,541.75 -62.08 1,542.69 0.71 0.58 6,204.00 91.21 180.91 4,802.61 -1,633.68 -65.18 1,542.69 0.71 0.58 6,204.00 99.01 180.61 4,801.27 -1,128.66 -66.83 1,726.64 1.50 -1.12 6,286.00 90.80 180.61 4,801.27 -1,817.65 -67.95 1,818.64 0.79 0.73 6,480.00 88.72 180.07 4,801.81 -1,908.64 -88.39 1,910.02 2.13 -2.04 6,572.00 98.70 179.65 4,802.97 -2,099.63 -67.29 2,045.55 -1.16 1.07 6,684.00 29.29 180.78 4,800.25 -2,165.6	5 745 00	92 69	180.32	4.818.27	-1.175.05	-56.38	1,175,94	0.70	0.48	-0.51
5,928.00 91.99 181.28 4,811.52 -1,357.91 -58.18 1,358.80 1.02 0.11 6,020.00 91.71 181.45 4,808.55 -1,449.84 -80.35 1,450.75 0.37 -0.30 6,112.00 92.24 181.83 4,805.38 -1,541.75 -22.98 1,542.69 0.71 0.58 6,204.00 91.21 180.91 4,802.81 -1,725.66 -66.63 1,726.64 1.39 -1.39 6,386.00 90.60 180.81 4,801.27 -1,817.65 -67.85 1,818.64 0.79 0.73 6,480.00 88.72 180.07 4,801.81 -1,909.64 -68.39 1,910.62 2.13 -2.04 6,572.00 89.70 179.65 4,802.87 -2,093.63 -67.29 2,094.55 0.91 0.80 6,756.00 92.25 180.78 4,800.25 -2,265.11 -69.20 2,277.43 2.89 -2.76 6,939.00 93.19 182.13 4,794.64 -2,388.4	•			•						0.01
6,112.00 92.24 181.83 4,805.38 -1,541.75 -62.98 1,542.69 0.71 0.58 6,204.00 91.21 180.91 4,802.61 -1,933.68 -65.18 1,634.65 1,50 -1.12 6,266.00 89.93 180.90 4,801.69 -1,725.66 -66.63 1,726.64 1.39 -1.39 6,388.00 90.60 180.61 4,801.27 -1,817.65 -67.85 1,818.64 0.79 0.73 6,480.00 88.72 180.07 4,801.81 -1,909.64 -68.63 1,726.64 0.79 0.73 6,480.00 89.70 179.65 4,803.08 -2,001.63 -68.17 2,002.59 1.16 1.07 6,684.00 90.44 179.26 4,803.08 -2,001.63 -68.17 2,002.59 1.16 1.07 6,684.00 90.44 179.26 4,803.05 -2,165.58 -67.32 2,186.48 3.19 2.73 6,847.00 90.44 181.58 4,797.56 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,939.00 93.19 182.13 4,794.64 -2,368.41 -72.17 2,389.37 3.05 2.99 7,031.00 92.49 183.59 4,760.08 2.460.18 -76.76 2,461.21 1.76 -0.76 7,123.00 91.28 183.84 4,787.08 -2,261.8 -76.76 2,461.21 1.76 -0.76 7,123.00 91.28 183.84 4,787.08 -2,261.9 4.264.0 18 -2,275.30 92.22 180.69 4,782.65 -2,275.83 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,780.32 -2,753.63 -92.20 2,754.91 2.71 1.37 7,565.00 91.61 179.43 4,766.82 -3,087.23 -92.00 1.61 179.43 4,766.82 -3,087.23 -92.01 2,987.56 0.27 0.11 7,689.00 91.61 179.43 4,766.82 -3,087.23 -92.01 2,987.56 0.27 0.11 7,689.00 91.61 179.43 4,766.82 -3,087.23 -92.01 2,987.56 0.27 0.11 7,689.00 91.61 179.43 4,766.82 -3,087.23 -92.01 2,987.56 0.27 0.11 7,689.00 91.61 179.43 4,766.82 -3,087.23 -92.01 2,987.56 0.27 0.11 7,689.00 91.61 179.43 4,766.82 -3,087.23 -92.01 2,987.56 0.27 0.11 7,689.00 91.61 179.43 4,766.82 -3,087.23 -92.01 2,987.56 0.27 0.11 7,689.00 91.61 179.43 4,766.82 -3,087.23 -92.01 2,987.56 0.27 0.11 7,689.00 91.61 179.43 4,766.82 -3,087.23 -92.01 2,987.56 0.27 0.11 7,689.00 91.61 179.43 4,766.82 -3,087.23 -92.01 3,388.43 1.91 -1.89 4,7751.00 91.04 183.84 4,764.69 -3,179.16 -93.75 3,180.39 4.62 0.02 0.02 1.00 1.00 1.00 1.00 1.00 1.0	•			=			-			1.01
6,204,00 91.21 180.91 4,802.81 -1,833.68 -65.18 1,634.65 1.50 -1.12 6,286.00 89.93 180.90 4,801.69 -1,725.66 -66.63 1,726.84 1.39 -1.39 6,388.00 90.60 180.61 4,801.69 -1,725.66 -67.85 1,818.64 0.79 0.73 6,480.00 88,72 180.07 4,801.81 -1,908.64 -68.39 1,910.62 2.13 -2.04 6,572.00 89,70 179.65 4,803.08 -2,001.63 -68.17 2,002.59 1.16 1.07 6,664.00 90.44 179.26 4,800.25 -2,185.58 -67.32 2,186.48 3.19 2.73 6,876.00 92.95 180.78 4,800.25 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,939.00 93.19 182.13 4,794.64 -2,368.41 -72.17 2,389.37 3.05 2.99 7,031.00 92.49 188.54 4,780.08 -2,460.1	6,020.00	91.71	181.45	4,808.55	-1,449.84	-60.35	1,450.75	0.37	-0.30	0.21
6,296.00 89.93 180.90 4,801.89 -1,725.66 -66.63 1,726.64 1.39 -1.39 6,386.00 90.60 180.61 4,801.27 -1,817.65 -67.85 1,818.64 0.79 0.73 6,480.00 88.72 180.07 4,801.81 -1,908.64 -68.39 1,910.62 2,13 -2.04 6,672.00 89.70 179.65 4,803.08 -2,001.63 -68.17 2,002.59 1,16 1.07 6,684.00 90.44 179.26 4,802.97 -2,093.63 -67.29 2,094.55 0.91 0.80 6,766.00 92.95 180.78 4,800.25 -2,186.58 -67.32 2,186.48 3.19 2.73 6,847.00 90.44 181.58 4,797.66 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,939.00 93.19 182.13 4,794.64 -2,368.41 -72.17 2,369.37 3.05 2.99 7,031.00 92.49 183.59 4,790.08 -2,480.18 -76.76 2,481.21 1.76 -0.76 7,123.00 91.28 183.84 4,787.06 -2,575.51.93 -82.71 2,553.07 1.34 -1.32 7,215.00 90.71 183.26 4,785.46 -2,643.74 -88.41 2,644.97 0.88 -0.62 7,325.00 92.22 180.69 4,782.65 -2,753.63 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,780.32 -2,813.58 -92.51 2,814.86 130 0.00 7,477.00 93.23 179.89 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,668.00 93.33 179.89 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,669.00 91.61 179.43 4,766.82 -3,087.23 -92.01 2,997.56 0.27 0.11 7,669.00 91.61 179.43 4,766.82 -3,087.23 -92.01 2,997.56 0.27 0.11 7,659.00 90.37 185.26 4,765.46 -3,370.87 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,765.46 -3,370.87 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,765.46 -3,370.87 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,765.36 -3,270.87 -10.89 3,272.22 1.91 -0.73 1,955.00 92.88 185.43 4,761.11 -3,362.43 -10.84 3,363.38 2.52 2.51 8,028.00 91.19 183.84 4,765.17 -3,549.70 -124.75 3,549.70 1.26.80 3,363.82 0.82 -0.78 8,280.00 91.19 183.89 4,755.97 -3,455.01 -117.62 3,466.66 1.81 -1.60 8,280.00 91.75 179.52 4,765.19 -3,364.50 1-127.65 3,564.39 4.71 -0.48 8,893.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,898.00 92.48 176.55 4,764.71 -3,844.50 1-126.80 3,363.82 0.82 -0.78 8,893.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,898.00 92.48 176.55 4,746.71 -3,845.50 -10.26 4,402.99 3,39 1.75.88 4,772.99 -4,486.88 -10.18.30 4,409.91 1.05 0.95 9,188.00	6,112.00	92.24	181.83	4,805.38	-1,541.75	-62.98	1,542.69	0.71	0.58	0.41
6,388.00 90.60 180.61 4,801.27 -1,817.65 -67.85 1,818.64 0.79 0.73 6,480.00 88.72 180.07 4,801.81 -1,909.64 -68.39 1,910.62 2.13 -2.04 6,572.00 89.70 179.65 4,803.08 -2,201.63 -68.72 2,004.55 0.91 1.07 6,864.00 90.44 179.26 4,800.25 -2,185.58 -67.32 2,186.48 3.19 2.73 6,847.00 90.44 181.58 4,797.56 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,939.00 93.19 182.13 4,794.64 -2,388.41 -72.17 2,489.37 3.05 2.99 7,031.00 92.49 183.59 4,780.08 -2,480.18 -76.6 2,481.21 1.76 0.76 7,123.00 91.28 183.84 4,787.06 -2,551.93 -82.71 2,553.07 1.34 -1.32 7,325.00 92.22 180.69 4,782.65 -2,753.63<	6,204.00	91.21	180.91	4,802.61	-1,633.68	-65.18	1,634.65	1.50	-1.12	-1.00
6,480.00 88.72 180.07 4,801.81 -1,909.64 -68.39 1,910.62 2.13 -2.04 6,572.00 89.70 179.65 4,803.08 -2,001.63 -68.17 2,002.59 1.16 1.07 6.684.00 90.44 179.26 4,802.97 -2,093.63 -67.29 2,094.55 0.91 0.80 6,756.00 92.95 180.78 4,802.95 -2,185.58 -67.32 2,186.48 3.19 2.73 6,847.00 90.44 181.58 4,797.56 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,847.00 90.44 181.58 4,797.56 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,939.00 93.19 182.13 4,794.64 -2,368.41 -72.17 2,369.37 3.05 2.99 7,031.00 92.49 183.59 4,790.08 -2,460.18 -76.76 2,481.21 1.76 -0.76 7,123.00 91.28 183.84 4,787.06 -2,551.93 -82.71 2,553.07 1.34 -1.32 7,215.00 90.71 183.26 4,765.46 -2,643.74 -88.41 2,644.97 0.88 -0.62 7,325.00 92.22 180.69 4,782.65 -2,753.63 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,780.92 -2,813.58 -92.51 2,814.86 1.30 0.00 7,477.00 93.23 179.89 4,776.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,568.00 93.33 179.89 4,776.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,568.00 91.61 179.43 4,768.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 3,179.16 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,763.66 -3,270.87 -100.89 3,272.22 1.91 -0.73 7,935.00 92.29 183.98 4,761.19 -3,362.43 -1.362.43 -1.362.43 -1.362.00 91.91 184.64 4,764.69 3,179.16 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,763.56 -3,270.87 -100.89 3,272.22 1.91 -0.73 7,935.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.55 3,646.39 4,71 -0.46 8,133.00 91.01 179.65 4,746.71 -3,824.50 -126.80 3,833.93 2.52 2.51 8,080.09 1.19 184.64 4,765.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.55 3,646.39 4,71 -0.46 8,693.00 91.41 177.31 4,737.20 4,119.21 -118.96 4,120.76 1.50 -1.13 8,880.00 91.01 179.65 4,746.71 -3,824.50 -126.80 3,836.36 0.82 -0.78 8,580.00 91.41 177.31 4,737.20 4,119.21 -118.96 4,120.76 1.50 -1.13 8,880.00 91.41 177.31 4,737.20 4,119.21 -118.96 4,120.76 1.50 -1.13 8,880.00 91.41 177.31 4,737.20 4,119.21 -118.96 4,120.76 1.50 -1.13 8,880.00 91.31 176	6,296.00	89.93	180.90	4,801.69	-1,725.66	-66.63	1,726.64		-1.39	-0.01
8.572.00 88.70 179.65 4,803.08 -2,001.63 -88.17 2,002.59 1.16 1.07 6,664.00 90.44 179.26 4,802.97 -2,093.63 -67.29 2,094.55 0.91 0.80 6,756.00 92.95 180.78 4,800.25 -2,165.58 -67.32 2,186.48 3.19 2.73 6,847.00 90.44 181.58 4,797.56 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,939.00 93.19 182.13 4,794.64 -2,368.41 -72.17 2,369.37 3.05 2.99 7,031.00 92.49 183.59 4,790.08 -2,460.18 -76.76 2,461.21 1.76 -0.76 7,123.00 91.28 183.84 4,787.06 -2,551.93 -82.71 2,553.07 1.34 -1.32 7,215.00 90.71 183.26 4,785.46 -2,643.74 -88.41 2,644.97 0.88 -0.62 7,325.00 92.22 180.69 4,782.65 -2,753.63 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,780.32 -2,813.58 -92.51 2,814.86 1.30 0.00 7,477.00 93.23 179.89 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,588.00 93.23 179.89 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,659.00 91.61 179.43 4,766.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 -3,179.16 -93.75 3,180.39 4.62 -0.62 7,835.00 92.28 180.89 4,765.56 -3,270.87 -10.89 3,272.22 1.91 -0.73 7,935.00 92.88 185.43 4,761.11 -3,362.43 -109.48 3,363.83 2.52 2.51 8,088.00 91.33 179.67 4,770.74 2,968.32 -92.01 2,997.56 0.27 0.11 7,659.00 91.61 179.43 4,766.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 -3,179.16 -93.75 3,180.39 4.62 -0.62 7,833.00 92.91 185.28 4,765.17 -3,362.43 -109.48 3,363.83 2.52 2.51 8,088.00 91.19 184.64 4,767.97 -3,455.01 -117.62 3,456.66 1.81 -1.60 8,133.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.52 4,751.90 -3,684.58 -127.65 3,686.39 4.71 -0.46 8,503.00 92.48 179.25 4,751.90 -3,684.58 -127.65 3,686.39 4.71 -0.46 8,693.00 91.41 177.31 4,737.20 4,119.21 -118.99 4,120.76 1.50 -1.13 8,893.00 91.48 177.54 4,744.18 -3,929.45 -125.30 3,931.16 1.60 1.09 8,893.00 91.41 177.31 4,737.20 4,119.21 -118.99 4,120.76 1.50 -1.13 8,893.00 91.38 176.54 4,744.18 -3,929.45 -125.30 3,931.16 1.60 1.09 8,893.00 91.48 178.43 4,730.65 -4,402.71 -104.10 4,403.90 3.39 1.09 9.39 1.09 1.09 1.09 4,000 89.31 179.55 4,740.42 -4,024.34 -122.64 4,025.88 0.55 0	6,388.00	90.60	180.61	4,801.27	-1,817.65	-67.85	1,818.64	0.79	0.73	-0.32
6,664.00 90.44 179.26 4,802.97 -2,093.63 -87.29 2,094.55 0.91 0.80 6,756.00 92.95 180.78 4,800.25 -2,185.58 -67.32 2,186.48 3.19 2.73 6,847.00 90.44 181.58 4,797.56 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,939.00 93.19 182.13 4,794.64 -2,368.41 -72.17 2,389.37 3.05 2.99 7,031.00 92.49 183.59 4,790.08 -2,460.18 -76.76 2,461.21 1.76 -0.76 7,123.00 91.28 183.84 4,787.06 -2,551.93 -82.71 2,553.07 1.34 -1.32 7,215.00 90.22 180.69 4,786.56 -2,481.74 -88.41 2,644.97 0.88 -0.62 7,325.00 92.22 179.91 4,780.32 -2,813.58 -92.51 2,814.86 1.30 0.00 7,477.00 93.23 179.89 4,776.95 -2,905.47	6,480.00	88.72	180.07	4,801.81	-1,909.64	-68.39	1,910.62			-0.59
6,786.00 92.95 180.78 4,800.25 -2,185.58 -67.32 2,186.48 3.19 2.73 6,847.00 90.44 181.58 4,797.56 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,847.00 90.44 181.58 4,797.56 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,939.00 93.19 182.13 4,794.64 -2,368.41 -72.17 2,369.37 3.05 2.99 7,031.00 92.49 183.59 4,790.08 -2,460.18 -76.76 2,461.21 1.76 -0.76 7,123.00 91.28 183.84 4,787.06 -2,561.93 -82.71 2,553.07 1.34 -1.32 7,215.00 90.71 183.26 4,785.46 -2,643.74 -88.41 2,844.97 0.88 -0.62 7,325.00 92.22 180.69 4,782.65 -2,753.63 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,780.32 -2,813.58 -92.51 2,814.86 1.30 0.00 7,477.00 93.23 179.89 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,568.00 93.33 179.67 4,770.74 -2,996.32 -92.01 2,997.56 0.27 0.11 7,699.00 91.61 179.43 4,766.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 -3,179.16 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,763.56 -3,270.87 -100.89 3,272.22 1.91 -0.73 7,935.00 92.28 185.43 4,761.11 -3,362.43 -109.48 3,363.93 2.52 2.51 8,028.00 91.19 184.64 4,757.97 -3,455.01 -117.62 3,456.66 1.81 -1.60 8,123.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,133.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,693.00 91.41 179.65 4,746.71 -3,894.50 -126.80 3,838.26 0.62 -0.78 8,503.00 92.48 178.26 4,744.13 -3,929.45 -125.30 3,931.16 1.60 0.00 8,588.00 92.48 178.26 4,744.13 -3,929.45 -125.30 3,931.16 1.60 0.00 8,588.00 92.48 178.26 4,744.13 -3,929.45 -125.30 3,931.16 1.60 0.00 8,588.00 92.48 178.26 4,744.13 -3,929.45 -125.30 3,931.16 1.60 0.00 8,583.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,744.13 -4,244.05 -114.23 4,215.48 0.99 0.93 8,883.00 91.38 176.15 4,740.42 -4,024.34 -122.44 4,025.88 0.55 0.45 8,693.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,740.42 -4,024.34 -122.44 4,025.88 0.55 0.45 8,993.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13	6,572.00	89.70	179.65	4,803.08	-2,001.63	-68.17	2,002.59			-0.46
6,847.00 90.44 181.58 4,797.56 -2,276.51 -69.20 2,277.43 2.89 -2.76 6,939.00 93.19 162.13 4,794.64 -2,368.41 -72.17 2,369.37 3.05 2.99 7,031.00 92.49 183.59 4,790.08 -2,460.18 -76.76 2,461.21 1.76 -0.76 7,123.00 91.28 183.84 4,767.06 -2,551.93 -62.71 2,553.07 1.34 -1.32 7,215.00 90.71 183.26 4,785.46 -2,643.74 -88.41 2,644.97 0.88 -0.62 7,325.00 92.22 180.69 4,762.65 -2,753.63 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,780.32 -2,813.58 -92.51 2,814.86 1.30 0.00 7,477.00 93.23 179.89 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,568.00 93.33 179.67 4,770.74 -2,996.32 -92.01 2,997.56 0.27 0.11 7,659.00 91.61 179.43 4,766.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 -3,179.16 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,763.56 -3,270.87 -100.89 3,272.22 1.91 -0.73 7,935.00 92.68 185.43 4,761.11 -3,362.43 -109.46 3,363.93 2.52 2.51 8,028.00 91.19 184.64 4,767.97 -3,455.01 -117.62 3,456.66 1.81 -1.60 8,133.00 92.19 183.98 4,755.17 -3,495.01 -117.62 3,456.66 1.81 -1.60 8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,313.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,313.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,533.00 91.01 179.65 4,746.71 -3,834.50 -126.80 3,836.26 0.82 -0.78 8,503.00 92.05 178.54 4,741.31 -4,244.41 -3,929.44 -122.64 4,302.99 8,393 -2.36 8,693.00 91.41 177.31 4,737.20 4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,893.00 91.38 176.15 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,893.00 91.38 176.15 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,893.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,301.13 1.30 -0.96 8,997.00 90.07 178.86 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,893.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,301.13 1.30 -0.96 8,997.00 90.07 178.86 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 9,073.00 90.07 178.86 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 9,080 90.07 178.86 4,734.13 -4,214.05 -114.23 4,215.48 0.9	6,664.00	90.44		4,802.97	-2,093.63					-0.42
6,939.00 93.19 182.13 4,794.64 -2,368.41 -72.17 2,369.37 3.05 2.99 7,031.00 92.49 183.59 4,780.08 -2,460.18 -76.76 2,461.21 1.76 -0.76 7,123.00 91.28 183.84 4,787.06 -2,551.93 -82.71 2,553.07 1.34 -1.32 7,215.00 90.71 183.26 4,785.46 -2,643.74 -88.41 2,644.97 0.88 -0.62 7,325.00 92.22 179.91 4,782.65 -2,753.63 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,586.00 93.33 179.89 4,770.74 -2,996.32 -92.01 2,997.56 0.27 0.11 7,659.00 91.61 179.43 4,766.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 -3,179.1	6,756.00	92.95			•					1.65
7,031.00 92.49 183.59 4,790.08 -2,460.18 -76.76 2,461.21 1.76 -0.76 7,123.00 91.28 183.84 4,787.08 -2,551.93 -82.71 2,553.07 1.34 -1.32 7,215.00 90.71 183.26 4,785.48 -2,643.74 -88.41 2,644.97 0.88 -0.62 7,325.00 92.22 180.69 4,782.85 -2,753.83 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,780.92 -2,905.47 -92.35 2,906.73 1.10 1.10 7,477.00 93.23 179.89 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,658.00 93.33 179.67 4,770.74 -2,996.32 -92.01 2,997.56 0.27 0.11 7,659.00 91.61 179.43 4,764.69 -3,179.16 -93.75 3,180.39 4,62 -0.62 7,843.00 90.37 185.26 4,764.69 -3,270.8	6,847.00	90.44	181.58	4,797.56	-2,276.51	-69.20	2,277.43	2.89	-2.76	0.88
7,031,00 92,49 183,59 4,790,08 -2,460,18 -76.76 2,461,21 1.76 -0.76 7,123,00 91,28 183,84 4,787,08 -2,551,93 -82,71 2,553,07 1.34 -1.32 7,215,00 90.71 183,26 4,785,48 -2,643,74 -88,41 2,644,97 0.88 -0.62 7,325,00 92,22 180,69 4,782,65 -2,753,63 -92,20 2,754,91 2.71 1.37 7,385,00 92,22 179,91 4,780,02 -2,905,47 -92,35 2,906,73 1.10 1.10 7,477,00 93,23 179,89 4,775,95 -2,905,47 -92,35 2,906,73 1.10 1.10 7,658,00 93,33 179,67 4,770,74 -2,996,32 -92.01 2,997,56 0.27 0.11 7,659,00 91,61 179,43 4,764,69 -3,179,16 -93,75 3,180,39 4,62 -0.62 7,843,00 90,37 185,26 4,763,56 -3,270,8	6,939.00	93.19	182.13	4,794.64	-2,368.41	-72.17	2,369.37	3.05	2.99	0.60
7,123.00 91.28 183.84 4,787.08 -2,551.93 -82.71 2,553.07 1.34 -1.32 7,215.00 90.71 183.26 4,785.48 -2,643.74 -88.41 2,644.97 0.88 -0.62 7,325.00 92.22 180.69 4,782.65 -2,753.63 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,780.32 -2,813.58 -92.61 2,814.86 1.30 0.00 7,477.00 93.23 179.89 4,776.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,588.00 93.33 179.87 4,770.74 -2,996.32 -92.01 2,997.56 0.27 0.11 7,658.00 91.61 179.43 4,766.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 -3,179.16 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,763.56 -3,270.8				•			-		-0.76	1.59
7,215.00 90.71 183.26 4,785.46 -2,643.74 -88.41 2,644.97 0.88 -0.62 7,325.00 92.22 180.69 4,782.65 -2,753.63 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,780.32 -2,813.58 -92.51 2,814.86 1.30 0.00 7,477.00 93.23 179.89 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,568.00 93.33 179.67 4,770.74 -2,996.32 -92.01 2,997.56 0.27 0.11 7,659.00 91.61 179.43 4,766.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,766.82 -3,270.87 -100.89 3,272.22 1.91 -0.73 7,843.00 90.37 185.26 4,763.56 -3,270.87 -100.89 3,272.22 1.91 -0.73 8,028.00 91.19 184.64 4,757.97 -3,450								1.34	-1.32	0.27
7,325.00 92.22 180.69 4,782.65 -2,753.63 -92.20 2,754.91 2.71 1.37 7,385.00 92.22 179.91 4,780.32 -2,813.58 -92.51 2,814.86 1.30 0.00 7,477.00 93.23 179.89 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,568.00 93.33 179.67 4,770.74 -2,996.32 -92.01 2,997.56 0.27 0.11 7,659.00 91.61 179.43 4,766.69 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 -3,179.16 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,761.51 -3,362.43 -100.88 3,272.22 1.91 -0.73 8,028.00 91.19 184.64 4,757.97 -3,455.01 -117.62 3,456.66 1.81 -1.80 8,128.00 91.75 179.52 4,751.91 -3,549			183.26	4,785.46	-2,643.74	-88.41	2,644.97	0.88	-0.62	-0.63
7,477.00 93.23 179.89 4,775.95 -2,905.47 -92.35 2,906.73 1.10 1.10 7,668.00 93.33 179.67 4,770.74 -2,996.32 -92.01 2,997.56 0.27 0.11 7,659.00 91.61 179.43 4,766.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 -3,179.16 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,763.56 -3,270.87 -100.89 3,272.22 1.91 -0.73 7,935.00 92.68 185.43 4,761.11 -3,362.43 -109.46 3,363.93 2.52 2.51 8,028.00 91.19 184.84 4,757.97 -3,455.01 -117.62 3,456.66 1.81 -1.60 8,123.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.90 4,749.00 -3,7	•		180.69	4,782.65	-2,753.63	-92.20	2,754.91	2.71	1.37	-2.34
7,568.00 93.33 179.67 4,770.74 -2,996.32 -92.01 2,997.56 0.27 0.11 7,659.00 91.61 179.43 4,766.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 -3,179.16 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,763.56 -3,270.87 -100.89 3,272.22 1.91 -0.73 7,935.00 92.68 185.43 4,761.11 -3,362.43 -109.46 3,363.93 2.52 2.51 8,028.00 91.19 184.64 4,757.97 -3,455.01 -117.62 3,456.66 1.81 -1.60 8,123.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.90 4,749.00 -3,739.53 -127.17 3,741.31 0.40 0.00 8,408.00 91.01 179.85 4,746.71 -3,	7,385.00	92.22	179.91	4,780.32	-2,813.58	-92.51	2,814.86	1.30	0.00	-1.30
7,659.00 91.61 179.43 4,766.82 -3,087.23 -91.29 3,088.43 1.91 -1.89 7,751.00 91.04 183.64 4,764.69 -3,179.16 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,763.56 -3,270.87 -100.89 3,272.22 1.91 -0.73 7,935.00 92.68 185.43 4,761.11 -3,362.43 -109.48 3,363.93 2.52 2.51 8,028.00 91.19 184.64 4,757.97 -3,455.01 -117.62 3,456.66 1.81 -1.60 8,123.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,313.00 91.75 179.90 4,749.00 -3,739.53 -127.17 3,741.31 0.40 0.00 8,408.00 91.01 179.65 4,740.71 -	7,477.00	93.23	179.89	4,775.95	-2,905.47	-92.35	2,906.73	1.10	1.10	-0.02
7,751.00 91.04 183.64 4,764.69 -3,179.16 -93.75 3,180.39 4.62 -0.62 7,843.00 90.37 185.26 4,763.56 -3,270.87 -100.89 3,272.22 1.91 -0.73 7,935.00 92.68 185.43 4,761.11 -3,362.43 -109.46 3,363.93 2.52 2.51 8,028.00 91.19 184.64 4,757.79 -3,455.01 -117.62 3,456.66 1.81 -1.60 8,123.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,313.00 91.75 179.90 4,749.00 -3,739.53 -127.17 3,741.31 0.40 0.00 8,408.00 91.01 179.65 4,746.71 -3,834.50 -126.80 3,836.26 0.82 -0.78 8,503.00 92.05 178.54 4,744.18	7,568.00	93.33	179.67	4,770.74	-2,996.32	-92.01	2,997.56	0.27	0.11	-0.24
7,843.00 90.37 185.26 4,763.58 -3,270.87 -100.89 3,272.22 1.91 -0.73 7,935.00 92.68 185.43 4,761.11 -3,362.43 -109.46 3,363.93 2.52 2.51 8,028.00 91.19 184.64 4,757.97 -3,455.01 -117.62 3,456.66 1.81 -1.60 8,123.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,313.00 91.75 179.90 4,749.00 -3,739.53 -127.17 3,741.31 0.40 0.00 8,408.00 91.01 179.65 4,746.71 -3,834.50 -126.80 3,836.26 0.82 -0.78 8,503.00 92.05 178.54 4,740.42 -4,024.34 -125.30 3,931.16 1.60 1.09 8,598.00 92.48 178.25 4,740.42 -4,024.34 -122.64 4,025.98 0.55 0.45 8,693.00	7,659.00	91.61	179.43	4,766.82	-3,087.23	-91.29	3,088.43	1.91	-1.89	-0.26
7,935.00 92.68 185.43 4,761.11 -3,362.43 -109.46 3,363.93 2.52 2.51 8,028.00 91.19 184.64 4,757.97 -3,455.01 -117.62 3,456.66 1.81 -1.60 8,123.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,313.00 91.75 179.90 4,749.00 -3,739.53 -127.17 3,741.31 0.40 0.00 8,408.00 91.01 179.65 4,746.71 -3,834.50 -126.80 3,836.26 0.82 -0.78 8,503.00 92.05 178.54 4,744.18 -3,929.45 -125.30 3,931.16 1.60 1.09 8,598.00 92.48 178.25 4,740.42 -4,024.34 -122.64 4,025.98 0.55 0.45 8,693.00 91.41 177.31 4,737.20 -	7,751.00	91.04	183.64	4,764.69	-3,179.16	-93.75	3,180.39	4.62	-0.62	4.58
8,028.00 91.19 184.64 4,757.97 -3,455.01 -117.62 3,456.66 1.81 -1.60 8,123.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,313.00 91.75 179.90 4,749.00 -3,739.53 -127.17 3,741.31 0.40 0.00 8,408.00 91.01 179.65 4,746.71 -3,834.50 -126.80 3,836.26 0.82 -0.78 8,503.00 92.05 178.54 4,744.18 -3,929.45 -125.30 3,931.16 1.60 1.09 8,598.00 92.48 178.25 4,740.42 -4,024.34 -122.64 4,025.98 0.55 0.45 8,693.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,734.13 -4,214.05 -14.23 4,215.48 0.99 0.93 8,883.00	•	90.37		4,763.56	•					1.76
8,123.00 92.19 183.98 4,755.17 -3,549.70 -124.75 3,551.47 1.26 1.05 8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,313.00 91.75 179.90 4,749.00 -3,739.53 -127.17 3,741.31 0.40 0.00 8,408.00 91.01 179.65 4,746.71 -3,834.50 -126.80 3,836.26 0.82 -0.78 8,503.00 92.05 178.54 4,744.18 -3,929.45 -125.30 3,931.16 1.60 1.09 8,598.00 92.48 178.25 4,740.42 -4,024.34 -122.64 4,025.98 0.55 0.45 8,693.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,883.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,310.13 1.30 -0.96 8,977.00										0.18
8,218.00 91.75 179.52 4,751.90 -3,644.58 -127.65 3,646.39 4.71 -0.46 8,313.00 91.75 179.90 4,749.00 -3,739.53 -127.17 3,741.31 0.40 0.00 8,408.00 91.01 179.65 4,746.71 -3,834.50 -126.80 3,836.26 0.82 -0.78 8,503.00 92.05 178.54 4,744.18 -3,929.45 -125.30 3,931.16 1.60 1.09 8,598.00 92.48 178.25 4,740.42 -4,024.34 -122.64 4,025.98 0.55 0.45 8,693.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,883.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,310.13 1.30 -0.96 8,977.00 89.16 178.43 4,730.65 -4,402.71 -104.10 4,403.90 3.39 -2.36 9,168.00 <td>•</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>•</td> <td></td> <td></td> <td>-0.85</td>	•				-		•			-0.85
8,313.00 91.75 179.90 4,749.00 -3,739.53 -127.17 3,741.31 0.40 0.00 8,408.00 91.01 179.65 4,746.71 -3,834.50 -126.80 3,836.26 0.82 -0.78 8,503.00 92.05 178.54 4,744.18 -3,929.45 -125.30 3,931.16 1.60 1.09 8,598.00 92.48 178.25 4,740.42 -4,024.34 -122.64 4,025.98 0.55 0.45 8,693.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,883.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,310.13 1.30 -0.96 8,977.00 89.16 178.43 4,730.65 -4,402.71 -104.10 4,403.90 3.39 -2.36 9,073.00 90.07 178.86 4,731.37 -4,593.66 -101.83 4,499.81 1.05 0.95 9,168.00				•	•		•			-0.69
8,408.00 91.01 179.65 4,746.71 -3,834.50 -126.80 3,836.26 0.82 -0.78 8,503.00 92.05 178.54 4,744.18 -3,929.45 -125.30 3,931.16 1.60 1.09 8,598.00 92.48 178.25 4,740.42 -4,024.34 -122.64 4,025.98 0.55 0.45 8,693.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,883.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,310.13 1.30 -0.96 8,977.00 89.16 178.43 4,730.65 -4,402.71 -104.10 4,403.90 3.39 -2.36 9,073.00 90.07 178.86 4,731.29 -4,498.68 -101.83 4,499.81 1.05 0.95 9,168.00 89.83 179.25 4,731.37 -4,593.66 -100.26 4,594.75 0.48 -0.25 9,263.00 <td>8,218.00</td> <td>91.75</td> <td>179.52</td> <td>4,751.90</td> <td>-3,644.58</td> <td>-127.65</td> <td>3,646.39</td> <td>4.71</td> <td>-0.46</td> <td>-4.69</td>	8,218.00	91.75	179.52	4,751.90	-3,644.58	-127.65	3,646.39	4.71	-0.46	-4.69
8,503.00 92.05 178.54 4,744.18 -3,929.45 -125.30 3,931.16 1.60 1.09 8,598.00 92.48 178.25 4,740.42 -4,024.34 -122.64 4,025.98 0.55 0.45 8,693.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,883.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,310.13 1.30 -0.96 8,977.00 89.16 178.43 4,730.65 -4,402.71 -104.10 4,403.90 3.39 -2.36 9,073.00 90.07 178.86 4,731.29 -4,498.68 -101.83 4,499.81 1.05 0.95 9,168.00 89.83 179.25 4,731.37 -4,593.66 -100.26 4,594.75 0.48 -0.25 9,263.00 92.65 178.29 4,729.32 -4,688.61 -98.22 4,689.63 3.14 2.97 9,294.00	•						-			0.40
8,598.00 92.48 178.25 4,740.42 -4,024.34 -122.64 4,025.98 0.55 0.45 8,693.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,883.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,310.13 1.30 -0.96 8,977.00 89.16 178.43 4,730.65 -4,402.71 -104.10 4,403.90 3.39 -2.36 9,073.00 90.07 178.86 4,731.29 -4,498.68 -101.83 4,499.81 1.05 0.95 9,168.00 89.83 179.25 4,731.37 -4,593.66 -100.26 4,594.75 0.48 -0.25 9,263.00 92.65 178.29 4,729.32 -4,688.61 -98.22 4,689.63 3.14 2.97 9,294.00 93.39 178.58 4,727.69 -4,719.55 -97.38 4,720.56 2.56 2.39	•			•	•					-0.26 -1.17
8,693.00 91.41 177.31 4,737.20 -4,119.21 -118.96 4,120.76 1.50 -1.13 8,788.00 92.29 176.98 4,734.13 -4,214.05 -114.23 4,215.48 0.99 0.93 8,883.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,310.13 1.30 -0.96 8,977.00 89.16 178.43 4,730.65 -4,402.71 -104.10 4,403.90 3.39 -2.36 9,073.00 90.07 178.86 4,731.29 -4,498.68 -101.83 4,499.81 1.05 0.95 9,168.00 89.83 179.25 4,731.37 -4,593.66 -100.26 4,594.75 0.48 -0.25 9,263.00 92.65 178.29 4,729.32 -4,688.61 -98.22 4,689.63 3.14 2.97 9,294.00 93.39 178.58 4,727.69 -4,719.55 -97.38 4,720.56 2.56 2.39	•			•			-			-0.31
8,883.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,310.13 1.30 -0.96 8,977.00 89.16 178.43 4,730.65 -4,402.71 -104.10 4,403.90 3.39 -2.36 9,073.00 90.07 178.86 4,731.29 -4,498.68 -101.83 4,499.81 1.05 0.95 9,168.00 89.83 179.25 4,731.37 -4,593.66 -100.26 4,594.75 0.48 -0.25 9,263.00 92.65 178.29 4,729.32 -4,688.61 -98.22 4,689.63 3.14 2.97 9,294.00 93.39 178.58 4,727.69 -4,719.55 -97.38 4,720.56 2.56 2.39	•			•	•					-0.99
8,883.00 91.38 176.15 4,731.09 -4,308.82 -108.54 4,310.13 1.30 -0.96 8,977.00 89.16 178.43 4,730.65 -4,402.71 -104.10 4,403.90 3.39 -2.36 9,073.00 90.07 178.86 4,731.29 -4,498.68 -101.83 4,499.81 1.05 0.95 9,168.00 89.83 179.25 4,731.37 -4,593.66 -100.26 4,594.75 0.48 -0.25 9,263.00 92.65 178.29 4,729.32 -4,688.61 -98.22 4,689.63 3.14 2.97 9,294.00 93.39 178.58 4,727.69 -4,719.55 -97.38 4,720.56 2.56 2.39	8 788 00	92 29	176 98	4,734.13	-4.214.05	-114.23	4,215.48	0.99	0.93	-0.35
8,977.00 89.16 178.43 4,730.65 -4,402.71 -104.10 4,403.90 3.39 -2.36 9,073.00 90.07 178.86 4,731.29 -4,498.68 -101.83 4,499.81 1.05 0.95 9,168.00 89.83 179.25 4,731.37 -4,593.66 -100.26 4,594.75 0.48 -0.25 9,263.00 92.65 178.29 4,729.32 -4,688.61 -98.22 4,689.63 3.14 2.97 9,294.00 93.39 178.58 4,727.69 -4,719.55 -97.38 4,720.56 2.56 2.39	-									-0.87
9,073.00 90.07 178.86 4,731.29 -4,498.68 -101.83 4,499.81 1.05 0.95 9,168.00 89.83 179.25 4,731.37 -4,593.66 -100.26 4,594.75 0.48 -0.25 9,263.00 92.65 178.29 4,729.32 -4,688.61 -98.22 4,689.63 3.14 2.97 9,294.00 93.39 178.58 4,727.69 -4,719.55 -97.38 4,720.56 2.56 2.39	•									2.43
9,168.00 89.83 179.25 4,731.37 -4,593.66 -100.26 4,594.75 0.48 -0.25 9,263.00 92.65 178.29 4,729.32 -4,688.61 -98.22 4,689.63 3.14 2.97 9,294.00 93.39 178.58 4,727.69 -4,719.55 -97.38 4,720.56 2.56 2.39	•									0.45
9,294.00 93.39 178.58 4,727.69 -4,719.55 -97.38 4,720.56 2.56 2.39	•									0.41
9,294.00 93.39 178.58 4,727.69 -4,719.55 -97.38 4,720.56 2.56 2.39	9,263.00	92.65	178.29	4,729.32	-4,688.61	-98.22	4,689.63	3.14	2.97	-1.01
		93.39	178.58	4,727.69	-4,719.55	-97.38	4,720.56	2.56	2.39	0.94
	9,325.00	93.65	178.93	4,725.78	-4,750.49	-96.71	4,751.47	1.40	0.84	1.13
9,357.00 93.74 178.93 4,723.72 -4,782.42 -96.11 4,783.38 0.28 0.28		93.74	178.93	4,723.72	-4,782.42	-96.11	4,783.38	0.28	0.28	0.00



SDI

Survey Report



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: MAVERICK 921-27D-HZ MAVERICK 921-27D-HZ

Wellbore: Design: ОН

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method: Database:

Site MAVERICK 921-27D-HZ

GL 4934 & KB 19 @ 4953.00ft (PIONEER 54)

GL 4934 & KB 19 @ 4953.00ft (PIONEER 54)

True

Minimum Curvature

EDM 5000.1 Single User Db

Survey

Vertical Vertical Dogleg Build Turn Measured Section Rate Rate Depth Inclination Azimuth Depth +N/-S +E/-W Rate (°/100ft) (°/100ft) (°/100ft) (ft) (ft) (ft) (ft) (°) (°) (ft)

SDI PROJECTION TO TD

Survey An	notations					
	Measured	Vertical	Local Coor	dinates		
	Depth	Depth	+N/-S	+E/-W		
	(ft)	(ft)	(ft)	(ft)	Comment	
	2,581.00	2,578.85	-3.47	-41.58	FIRST SDI MWD PRODUCTION SURVEY	
	9,357.00	4,723.72	-4,782.42	-96.11	LAST SDI MWD PRODUCTION SURVEY	
	9,403.00	4,720.72	-4,828.31	-95.25	SDI PROJECTION TO TD	

Checked By:	Approved By:	Date:

STATE OF UTAH

zip 80217

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

P.O. BOX 173779

city DENVER

state CO

Phone Number: (435) 781-9758

Well 1

API Number	Well	Name	QQ	Sec	Twp	Rng	County	
4304732426	NATURAL COTTON :	URAL COTTON 34-21			98	21E	21E UINTAH	
Action Code	Current Entity Number	New Entity Number	S	Spud Date		Entity Assignment Effective Date		
D	11522	19013				1/12/2013		

Well 2

API Number	Well Name NBU 214		QQ NWSW	Sec 27	Twp 9S	Rng	County UINTAH
4304732466						21E	
Action Code	Current Entity Number	New Entity Number	Spud Da			Entity Assignment Effective Date	
. D	18351	19013			•	1/12/2013	

Well 3

API Number	Well Name MAVERICK 921-27D-HZ		QQ NWNW	Sec 27	Twp 9S	Rng	County
4304752051						21E UINTAH	
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
D	18542	19013				1/12/2013	

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

RECEIVED

Doreen Green

Name (Please Print)

Signature

Regulatory Analyst

12/23/2013

Title

Date

DEC 2 4 2013